APPENDIX J

ACOUSTICAL ASSESSMENT

Acoustical Assessment
Menifee Compass Northern Gateway Warehouses
City of Menifee, California

Prepared by:

Kimley-Horn and Associates, Inc.
1100 W. Town and Country Road, Suite 700
Orange, California 92868
Contact: Mr. Ace Malisos
714.939.1030

April 2024

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LIST OF ABBREVIATED TERMS

ADT	average daily traffic
dBA	A-weighted sound level
CEQA	California Environmental Quality Act
CNEL	community equivalent noise level
L_{dn}	day-night noise level
dB	decibel
L_{eq}	equivalent noise level
MDC	Menifee Development Code
FHWA	Federal Highway Administration
FT	feet
FTA	Federal Transit Administration
HVAC	heating ventilation and air conditioning
Hz	hertz
in/sec	inches per second
L_{max}	maximum noise level
µPa	micropascals
L_{min}	minimum noise level
PPV	peak particle velocity
RMS	root mean square
VdB	vibration velocity level

1 INTRODUCTION

This report documents the results of an Acoustical Assessment completed for the Menifee Compass Northern Gateway Warehouses Project (Project). The purpose of this Acoustical Assessment is to evaluate the potential construction and operational noise and vibration levels associated with the Project and determine the level of impact the Project would have on the environment.

1.1 Project Location

The Project is generally located in the northeastern part of the City of Menifee (City), in the County of Riverside (County), in the State of California. Regional access to the Project is provided via Interstate (I-215); refer to Exhibit 1: Regional Vicinity Map.

Project Site 1 (Corsica Lane) DEV2022-010

Project Site 1 related improvements would occur on three separate accessor parcel numbers (APN: 330-180-010, -046, and -006) in the City of Menifee. Project Site 1 is bisected by Corsica Lane and generally bounded by a Southern California Edison (SCE) public utility corridor and McLaughlin Road to the south; single-family residential uses, Aaron Alan Drive, and Ruffian Road to the north; Goetz Road with single family residences beyond to the west; and Wheat Street to the east; refer to Exhibit 2: Local Vicinity Map.

Project Site 2 (Wheat Street) DEV2022-012

Project Site 2 related improvements would occur on one parcel (APN: 330-180-012) or more specifically at 26201 Wheat Street in the City of Menifee. Project Site 2 is generally bounded by single-family residences to the south; vacant land and Ethanac Road to the north; single family residences and Ruffian Road to the west; and Wheat Street to the east; refer to Exhibit 2.

Project Site 3 (Evans Road) DEV2022-018

Project Site 3 related improvements would occur on one parcel (APN: 331-060-018) southeast of the intersection of Ethanac Road and Evans Road in the City of Menifee. Project Site 3 is generally bounded by vacant land to the south; Ethanac Road and the City of Perris to the north; vacant land, a Riverside County flood control channel, and Barnett Road to the east; and Evans Road and a single-family residence to the west; refer to Exhibit 2.

1.2 Project Description

The Project proposes the development of approximately 461,237 square feet (SF) of industrial warehousing within four buildings on three separate sites, totaling 25.90 total gross-acres. Project Sites 1 through 3 also include associated facilities and improvements which includes loading dock doors, on-site landscaping, and related on-site and off-site improvements (roadway improvements, sewer, storm drain, utilities).

Since the release of the Notice of Preparation (NOP) on January 13, 2023, the Project's design has changed. The original Project Site 1 included three buildings on four separate parcels. However, APN 330-180-029 was removed from Project Site 1 and thus reduced the total proposed buildings from three to two, now totaling 234,921 square feet (SF). In addition, the building on Site 2 was increased from 86,676

SF to 87,770 SF and the building on Site 3 was increased from 137,896 SF to 138,546 SF. However, to be conservative, the Air Quality Assessment (where applicable) analyzes the Project as described in the NOP which was 28,366 SF larger than what is currently proposed.

Project Site 1 (Corsica Lane) DEV2022-010

Project Site 1 related improvements would occur on three separate accessor parcel numbers (APN: 330-180-010, -046, and -006) totaling approximately 13.66 gross acres and includes the construction of three concrete tilt-up buildings totaling 234,921 SF. More specifically, Building 1 would total 154,831 SF, inclusive of 5,000 SF office space and proposes a structural height of 41 feet and includes 136 automobile parking spaces and 16 trailer parking spaces. Building 2 would total 80,090 SF, inclusive of 4,000 SF of office space and proposes a structural height of 41 feet and includes 80 automobile parking spaces; refer to Exhibit 3: Site Plan (Site 1).

Project Site 2 (Wheat Street) DEV2022-012

Project Site 2 consists of the demolition of an existing residential structure and includes the construction of one concrete tilt-up building totaling 86,676 SF, inclusive of 5,000 SF of office space and 4,500 SF of mezzanine, on approximately 4.72 gross acres. The building proposes a structural height of 40 feet and would include a total of 112 automobile parking spaces; refer to Exhibit 4: Site Plan (Site 2).

Project Site 3 (Evans Road) DEV2022-018

Project Site 3 would include the construction of one concrete tilt-up building totaling 137,896 SF, inclusive of 3,000 SF of office space and 3,000 of mezzanine, on approximately 7.52 gross acres. The building proposes a structural height of 43 feet and would include a total of 154 automobile parking spaces; refer to Exhibit 5: Site Plan (Site 3).

General Plan Land Use Designations and Zoning Classifications

The Project Sites' existing land use designation is Economic Development Corridor (EDC) – Northern Gateway. The Project's proposed industrial uses are allowed within the EDC – Northern Gateway land use designation. The Project Sites' existing zoning classification is the Economic Development Corridor-Northern Gateway (EDC-NG). The Project's proposed industrial uses are permitted within the EDC-NG zoning classification.

Project Phasing and Construction

The Project is anticipated to be developed in one phase. Construction is anticipated to occur over a duration of 12 months, beginning in late 2024.

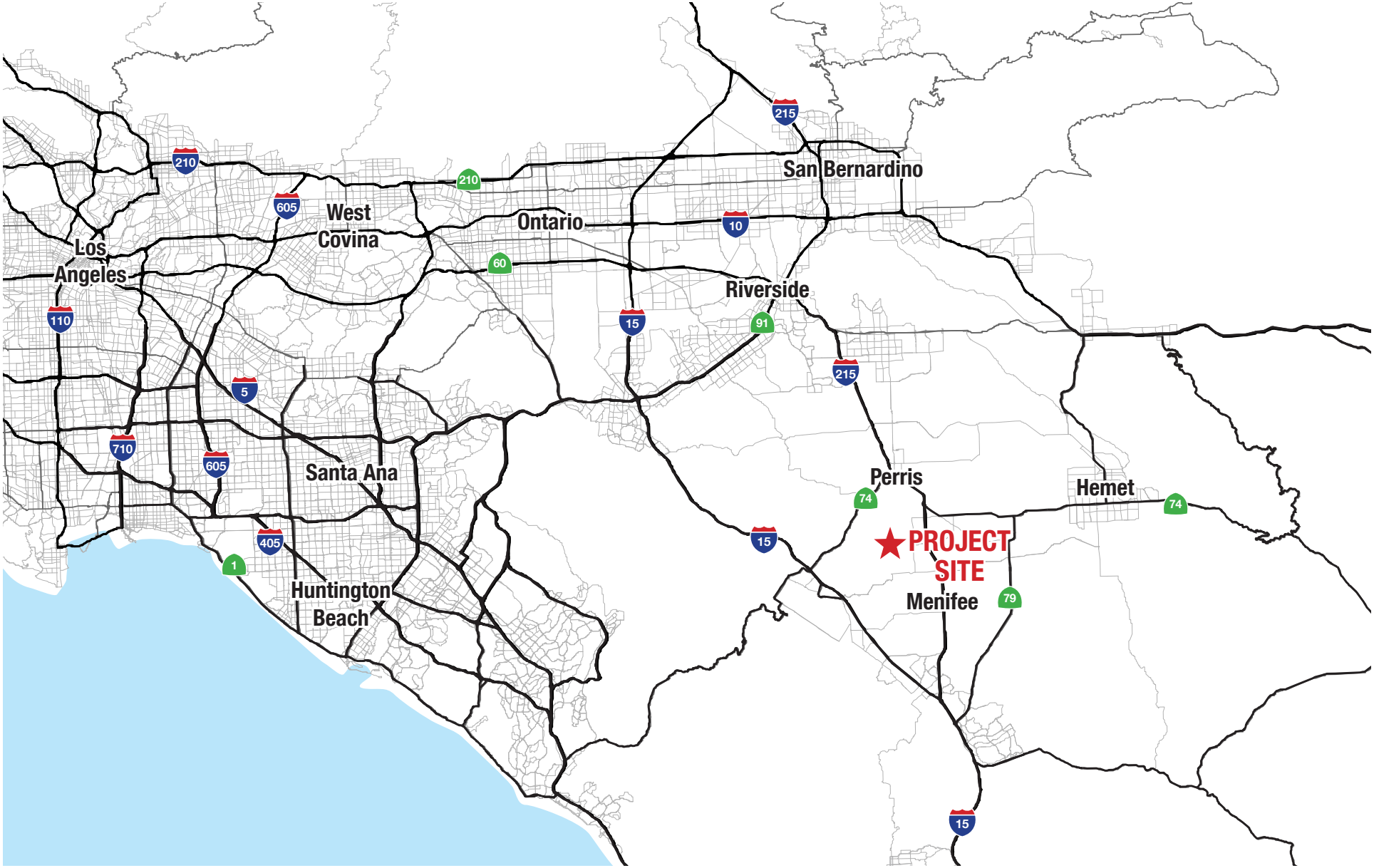

EXHIBIT 1: Regional Vicinity Map

Menifee Compass Northern Gateway Warehouses Project

City of Menifee

Not to Scale

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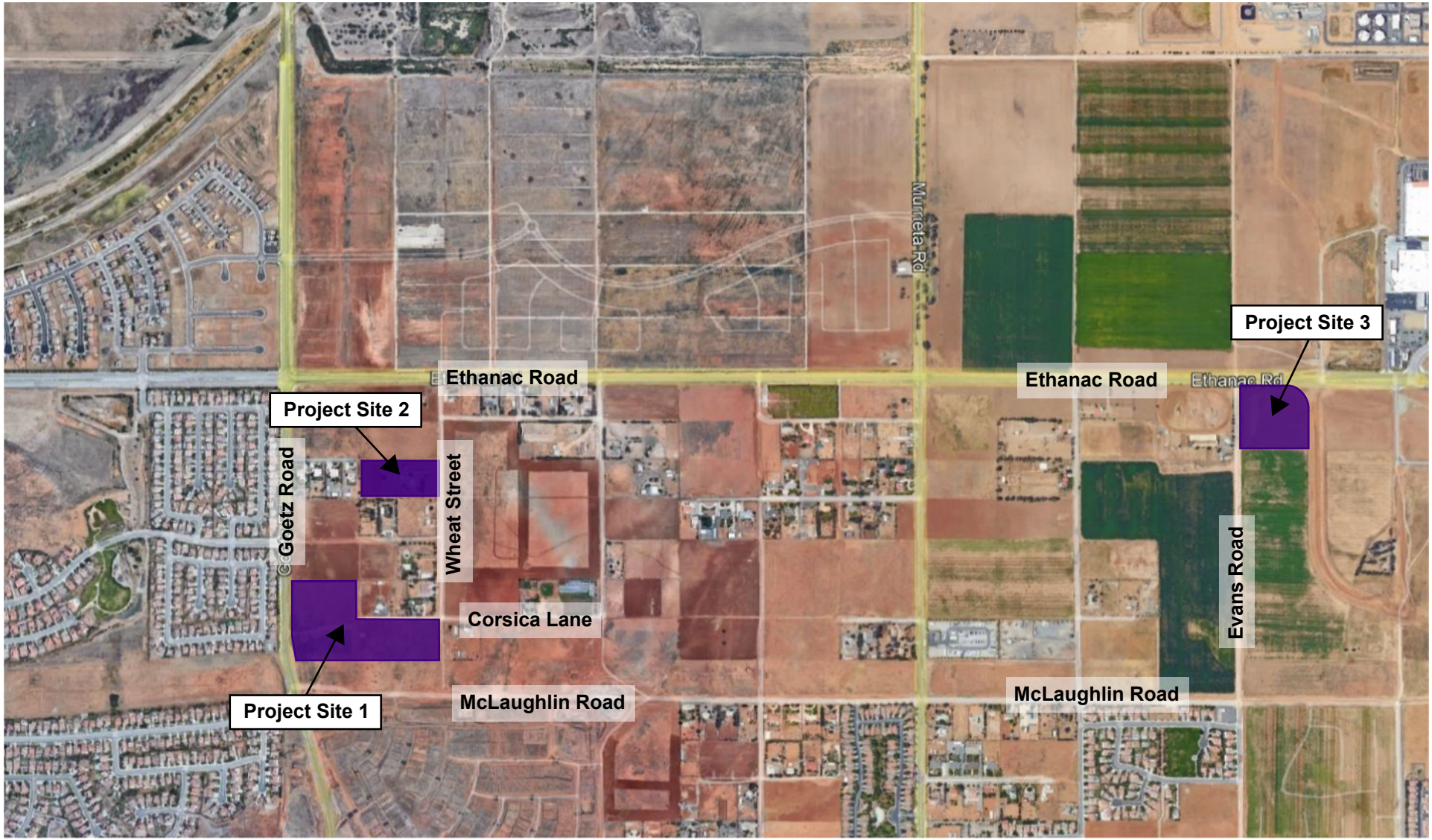

Source: Google Earth Pro

EXHIBIT 2: Local Vicinity Map

Menifee Compass Northern Gateway Warehouses Project

City of Menifee

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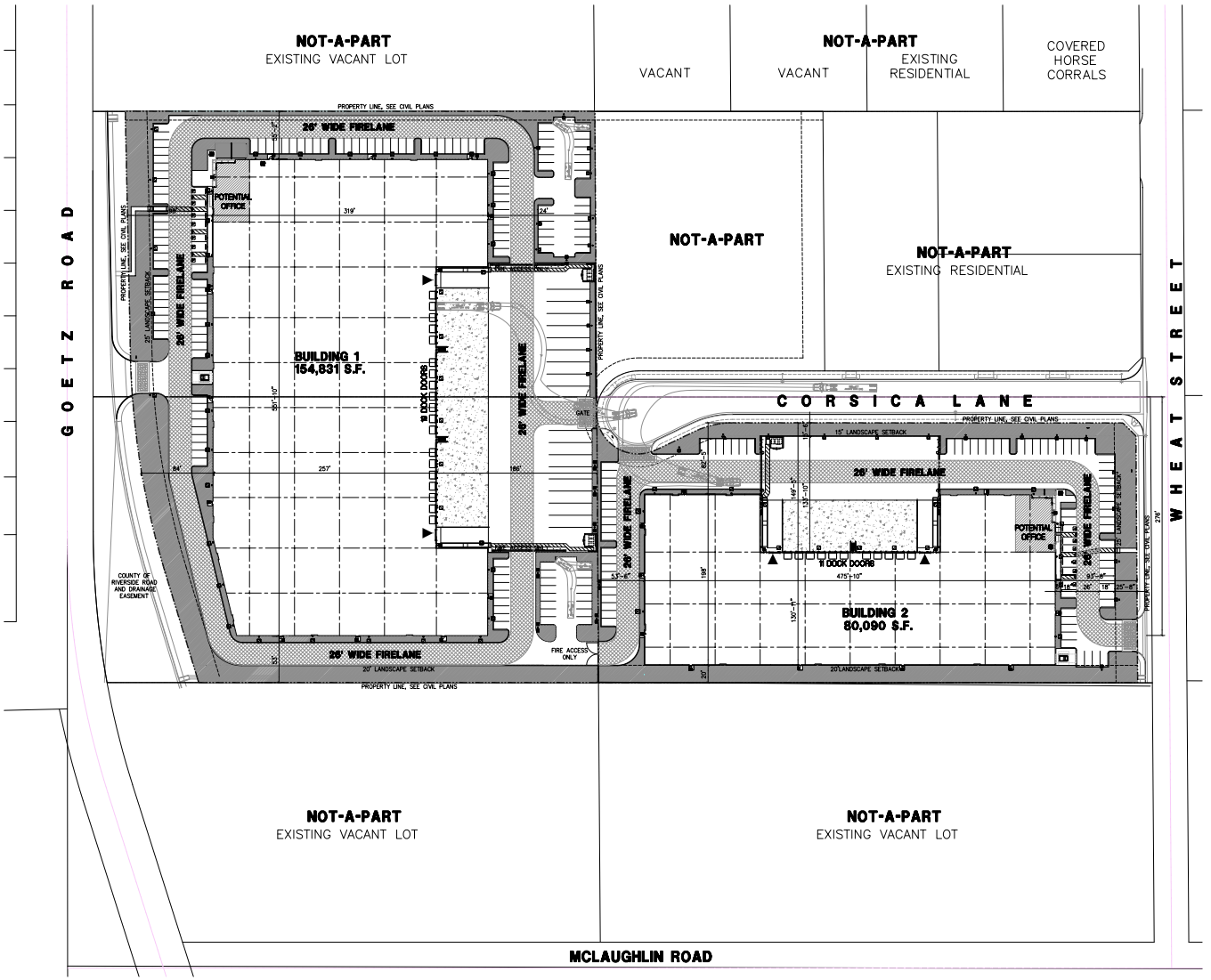

PROJECT DATA

	BLDG. 1	BLDG. 2	TOTAL	
SITE AREA				
In s.f.	345,614	184,042	529,656	s.f.
In acres	7.93	4.23	13.99	ac
BUILDING AREA				
Office	5,000	4,000	9,000	s.f.
Warehouse	149,831	76,090	225,921	s.f.
TOTAL	**154,831**	**80,090**	**234,921**	s.f.
COVERAGE	44.8%	43.5%	44.4%	
AUTO PARKING REQUIRED				
Office: 1/300 s.f.	17	13	30	stalls
Whse: 1st 100k @ 1/1,000 s.f.	100	76	176	stalls
100k to 500k @ 1/1,500 s.f.	34		34	stalls
over 500k @ 1/2,000 s.f.			0	stalls
TOTAL	151	89	240	stalls
10% Reduction per Items 1 and 2 below under Alltternative Programs for Parking				
Parking Reduction	15	9	24	stalls
Total parking required w ith reduction	**136**	**80**	**216**	**stalls**
Alternative Programs for Parking				
1. Roadw ay improvements and/or dedications that go beyond the code required improvements or traffic study recommended improvements (5%)				
2. Lot consolidation and elimination of existing legal non-conforming uses/structures/properties totaling a minimum of 5 acres (5%)				
3. Renew able energy – 100% of the Initial improvements for the facility to be pow ered by solar or by renew able sources (5%)				
4. Added landscape setbacks beyond first 25 feet (1% for 5 feet, 3% for 10 feet, 5% for 15 feet)				
Required Accessible Parking				
Van Accesible (12' x 18')	1	1	2	stalls
Standard Accessible (9' x 18')	4	3	7	stalls
Future EV Van Accessible (12'x18')	1	1	2	stalls
Future EV Standard Accessible (9'x18')	1	1	2	stalls
Future EV and Clean Air/Van Pool/EV Requirements				
Future EV Parking (9'x18') (76-100 stalls)	11	7	18	stalls
Clean Air/Van Pool/EV (9'x18') (76-100 stalls)	5	3	8	stalls
Note: Future charging spaces qualify as designated parking as described in section 5.106.5.2 Designated parking for clean air vehicles				
AUTO PARKING PROVIDED				
Standard (9' x 18')	120	65	185	stalls
Accesible (9' x 18')	4	3	7	stalls
Van Accesible (12' x 18')	1	1	2	stalls
Future EV Van Accesible (12' x 18')	1	1	2	stalls
Future EV Standard Accessible (9'x18')	1	1	2	stalls
Future Standard EV (9' x 18')	11	7	18	stalls
Clean Air Vehicle (9' x 18')	5	3	8	stalls
TOTAL	143	81	224	stalls
BICYCLE PARKING				
Required				
Short Term @ 1/25 car spaces	6	4	10	racks
Long Term @ 1/25 car spaces	6	4	10	racks
1 Bicycle space for every 25 parking spaces required. A minimum of 2 bicycle spaces required.				
Provided				
Short Term	6	4	10	racks
Long Term	6	4	10	racks
TRAILER PARKING PROVIDED				
Trailer (10' x 55')	16	0	16	stalls
ZONING ORDINANCE FOR CITY				
Zoning Designation - Economic Development Corridor - Northern Gatew ay (EDC-NG)				
MAXIMUM BUILDING HEIGHT ALLOWED				
Height - 100'				
MAXIMUM FLOOR AREA RATIO				
FAR - 1.0				
LANDSCAPE REQUIREMENT				
Percentage - 10% (sf)	34,561	18,404	52,966	sf
LANDSCAPE PROVIDED				
Percentage	16%	20%	17%	
Area (sf)	53,628	36,234	89,862	sf
SETBACKS				
Front - 25'				
Street side - 15'				
Rear yard - 10'				
STATEMENT OF OPERATION				
Occupancy / Operations TBD				
(Potential Uses: General w arehouse, distribution centers and storage; Manufacturing, Light or Medium-Intensity.)				

Source: HPA Inc. (2024). Master Site Plan

EXHIBIT 3: Site Plan (Site 1)

Menifee Compass Northern Gateway Warehouses Project

City of Menifee

Not to Scale

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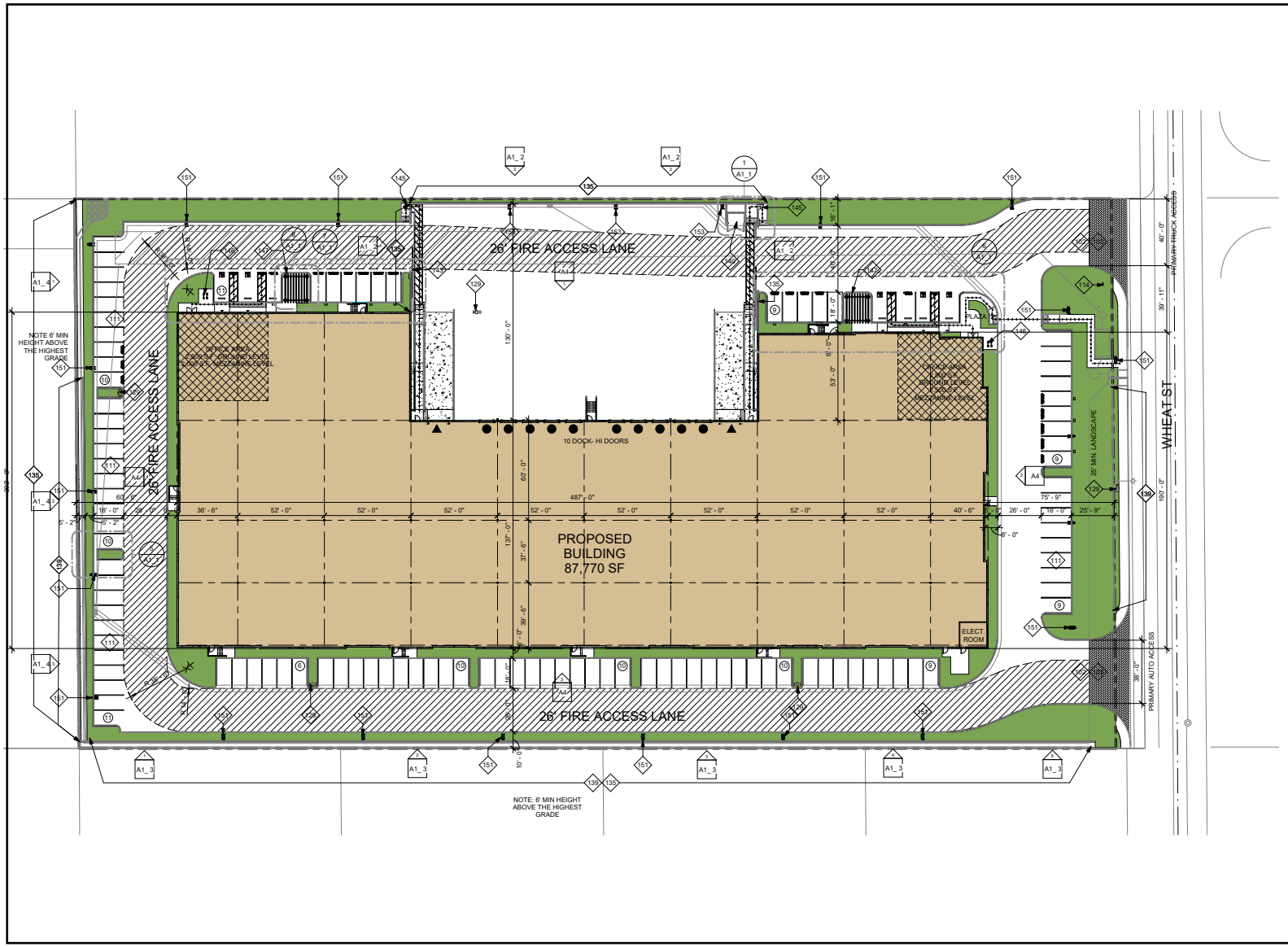

GROSS SITE AREA

SQUARE FOOTAGE	ACRES
205477 SF	4.72

FLOOR AREA RATIO

BUILDING AREA	SITE AREA	FAR ALLOWABLE	FAR PROVIDED
87700 SF	205477 SF	100%	42.7%

BUILDING AREA SUMMARY

NAME	AREA
GROUND FLOOR	
WAREHOUSE	78200 SF
OFFICE	2500 SF
OFFICE	2500 SF
	83200 SF
MEZZANINE	
OFFICE	2500 SF
OFFICE	2000 SF
	4500 SF
GROUND LEVEL + MEZZANINE	
WAREHOUSE	78200 SF
OFFICE	9500 SF
TOTAL BUILDING AREA	87700 SF

LANDSCAPE AREA SUMMARY

LOT AREA	% LANDSCAPING REQUIRED	AREA LANDSCAPING PROVIDED	% LANDSCAPING PROVIDED
205644 SF	10%	33904 SF	16.5%

TOTAL PARKING REQUIRED

BUILDING USE	BUILDING AREA	PARKING RATIO 1/X	REQ. PARKING
OFFICE	9500 SF	300	31.67
WAREHOUSE	78200 SF	1000	78.20
TOTAL	87700 SF		109.87

REQUIRED PARKING BREAKDOWN

SPACE TYPE	SPACES REQUIRED
STANDARD STALLS	85
STANDARD ACCESSIBLE STALLS	4
VAN ACCESSIBLE STALLS	1
CLEAN AIR STALLS	7
FUTURE EV CHARGING ONLY STALLS	11
FUTURE EV CHARGING ONLY STANDARD ACCESSIBLE STALLS	1
FUTURE EV CHARGING ONLY VAN ACCESSIBLE STALLS	1
TOTAL	110

PARKING PROVIDED

SPACE TYPE	SPACES PROVIDED
STANDARD STALLS	87
STANDARD ACCESSIBLE STALLS	3
VAN ACCESSIBLE STALLS	2
CLEAN AIR STALLS	7
FUTURE EV CHARGING ONLY STALLS	11
FUTURE EV CHARGING ONLY STANDARD ACCESSIBLE STALLS	1
FUTURE EV CHARGING ONLY VAN ACCESSIBLE STALLS	1
TOTAL	112

Source: Herdman. (2023). Site Plan

Exhibit 4: Site Plan (Site 2)
City of Menifee
Compass Northern Gateway

Not to Scale

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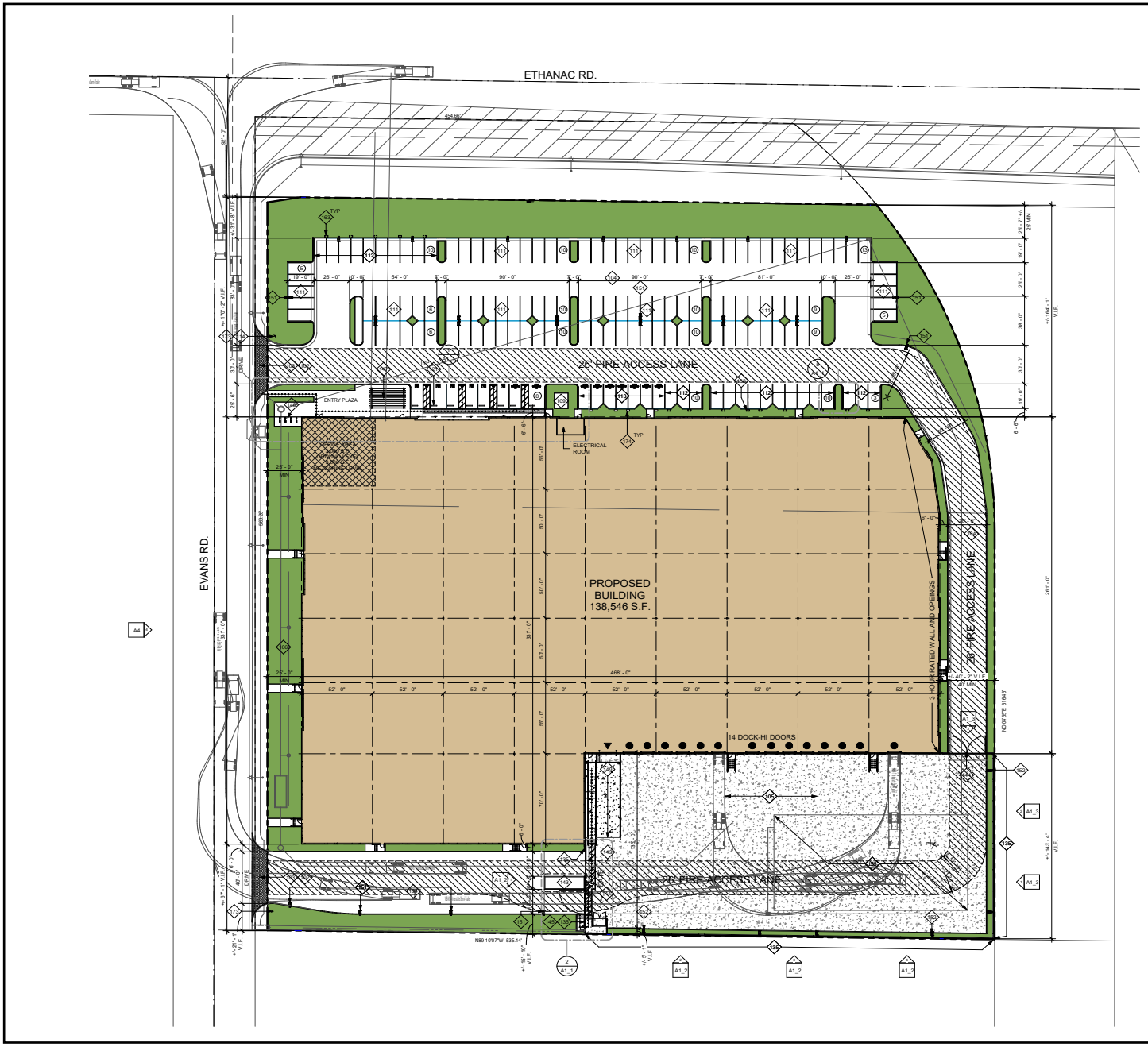

SITE AREA

SQUARE FOOTAGE	ACRES
GROSS	
327656 SF	7.52
NET	
295988 SF	6.79

FLOOR AREA RATIO

BUILDING AREA	SITE AREA	FAR ALLOWABLE	FAR PROVIDED
138546 SF	295988 SF	100%	46.8%

BUILDING AREA SUMMARY

NAME	AREA
GROUND FLOOR	
WAREHOUSE	132546 SF
OFFICE	3000 SF
	135546 SF
MEZZANINE	
OFFICE	3000 SF
	3000 SF
GROUND LEVEL + MEZZANINE	
WAREHOUSE	132546 SF
OFFICE	6000 SF
TOTAL BUILDING AREA	138546 SF

LANDSCAPE AREA SUMMARY

LOT AREA	% LANDSCAPING REQUIRED	AREA LANDSCAPING PROVIDED	% LANDSCAPING PROVIDED
295988 SF	10%	46903 SF	15.8%

TOTAL PARKING REQUIRED

BUILDING USE	BUILDING AREA	PARKING RATIO 1/X	REQ. PARKING
OFFICE	6000 SF	300	20.00
WAREHOUSE	32546 SF	1500	21.70
WAREHOUSE	100000 SF	1000	100.00
TOTAL	138546 SF		141.70

REQUIRED PARKING BREAKDOWN

SPACE TYPE	SPACES REQUIRED
STANDARD STALLS	112
STANDARD ACCESSIBLE STALLS	5
VAN ACCESSIBLE STALLS	0
EV CAPABLE STALL (w/o EVSE)	19
EVCS (EV CAPABLE STALL w/ EVSE)	4
STANDARD ACCESSIBLE EVCS (EV CAPABLE STALL w/ EVSE)	1
VAN ACCESSIBLE EVCS (EV CAPABLE STALL w/ EVSE)	1
TOTAL	142

PARKING PROVIDED

SPACE TYPE	SPACES PROVIDED
STANDARD STALLS	113
STANDARD ACCESSIBLE STALLS	5
VAN ACCESSIBLE STALLS	1
EV CAPABLE STALL (w/o EVSE)	26
EVCS (EV CAPABLE STALL w/ EVSE)	7
STANDARD ACCESSIBLE EVCS (EV CAPABLE STALL w/ EVSE)	1
VAN ACCESSIBLE EVCS (EV CAPABLE STALL w/ EVSE)	1
TOTAL	154

Source: Herdman. (2023). Proposed Site Plan

Exhibit 5: Site Plan (Site 3)
City of Menifee
Compass Northern Gateway

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2 ACOUSTIC FUNDAMENTALS

2.1 Sound and Environmental Noise

Acoustics is the science of sound. Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a medium (e.g., air) to human (or animal) ear. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound and is expressed as cycles per second, or hertz (Hz).

Noise is defined as loud, unexpected, or annoying sound. The fundamental acoustics model consists of a noise source, a receptor, and the propagation path between the two. The loudness of the noise source, obstructions, or atmospheric factors affecting the propagation path determine the perceived sound level and noise characteristics at the receptor. Acoustics deal primarily with the propagation and control of sound. A typical noise environment consists of a base of steady background noise that is the sum of many distant and indistinguishable noise sources. The sound from individual local sources is superimposed on this background noise. These sources can vary from an occasional aircraft or train passing by to continuous noise from traffic on a major highway. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a large range of numbers. To avoid this, the decibel (dB) scale was devised. The dB scale uses the hearing threshold of 20 micropascals (µPa) as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The dB scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels correspond closely to human perception of relative loudness. Table 1: Typical Noise Levels provides typical noise levels.

Table 1: Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	– 110 –	Rock Band
Jet fly-over at 1,000 feet		
	– 100 –	
Gas lawnmower at 3 feet		
	– 90 –	
Diesel truck at 50 feet at 50 miles per hour		Food blender at 3 feet
	– 80 –	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawnmower, 100 feet	**– 70 –**	Vacuum cleaner at 10 feet
Commercial area		Normal Speech at 3 feet
Heavy traffic at 300 feet	**– 60 –**	
		Large business office
Quiet urban daytime	**– 50 –**	Dishwasher in next room
Quiet urban nighttime	**– 40 –**	Theater, large conference room (background)
Quiet suburban nighttime		
	– 30 –	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	– 20 –	
		Broadcast/recording studio
	– 10 –	
Lowest threshold of human hearing	**– 0 –**	Lowest threshold of human hearing

Source: California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013.

Noise Descriptors

The dB scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise on people is largely dependent on the total acoustical energy content of the noise, as well as the time of day when the noise occurs. Most commonly, environmental sounds are described in terms of the equivalent noise level (L_{eq}) that has the same acoustical energy as the summation of all the time-varying events. While L_{eq} represents the continuous sound pressure level over a given period, the day-night noise level (L_{dn}) and Community Equivalent Noise Level (CNEL) are measures of energy average during a 24-hour period, with dB weighted sound levels from 7:00 p.m. to 7:00 a.m. Each is applicable to this analysis and defined in Table 2: Definitions of Acoustical Terms.

Table 2**: Definitions of Acoustical Terms**

Term	Definitions
Decibel (dB)	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in µPa (or 20 micronewtons per square meter), where 1 pascal is the pressure resulting from a force of 1 newton exerted over an area of 1 square meter. The sound pressure level is expressed in dB as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 µPa). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency (Hz)	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level (dBA)	The sound pressure level in dB as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level (L_{eq})	The average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
Maximum Noise Level (L_{max}) Minimum Noise Level (L_{min})	The maximum and minimum dBA during the measurement period.
Exceeded Noise Levels (L_{01}, L_{10}, L_{50}, L_{90})	The dBA values that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day-Night Noise Level (L_{dn})	A 24-hour average L_{eq} with a 10 dBA weighting added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity at nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn}.
Community Noise Equivalent Level (CNEL)	A 24-hour average L_{eq} with a 5 dBA weighting during the hours of 7:00 a.m. to 10:00 a.m. and a 10 dBA weighting added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.7 dBA CNEL.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends on its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Because sound levels can vary markedly over a short period of time, a method for describing either the sound's average character (L_{eq}) or the variations' statistical behavior (L_{XX}) must be utilized. The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about plus or minus 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The predicted models' accuracy depends on various factors, such as the distance between the noise receptor and the noise source, the character of the ground surface (e.g., hard or soft), and the presence or absence of structures (e.g., walls or buildings) or topography, and how well model inputs reflect these conditions.

A-Weighted Decibels

The perceived loudness of sounds is dependent on many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable and can be approximated by dBA values. There is a strong correlation between dBA and the way the human ear perceives sound. For this reason, the dBA has become the standard tool of environmental noise assessment. All noise levels reported in this document are in terms of dBA, but are expressed as dB, unless otherwise noted.

Addition of Decibels

The dB scale is logarithmic, not linear, and therefore sound levels cannot be added or subtracted through ordinary arithmetic. Two sound levels 10 dB apart differ in acoustic energy by a factor of 10.[1] When the standard logarithmic dB is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness.[2] For example, a 70-dBA sound is half as loud as an 80-dBA sound and twice as loud as a 60-dBA sound. When two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dBA higher than one source under the same conditions. Under the dB scale, three sources of equal loudness together would produce an increase of 5 dBA.[3]

Sound Propagation and Attenuation

Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 dB for each doubling of distance from a stationary or point source.[4] Sound from a line source, such as a highway, propagates outward in a cylindrical pattern. Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics.[5] No excess attenuation is assumed for hard surfaces like a parking lot or a body of water. Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. For line sources, an overall attenuation rate of 3 dB per doubling of distance is assumed in this report.

Noise levels may also be reduced by intervening structures; generally, a single row of buildings between the noise receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm can reduce noise levels by 5 to 15 dBA.[6] The way older homes in California were constructed generally

1 California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013.
2 Ibid.
3 Ibid.
4 Ibid.
5 Ibid.
6 Federal Highway Administration, *Highway Traffic and Construction Noise - Problem and Response*, April 2006.

provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows. The exterior-to-interior reduction of newer residential units is generally 30 dBA or more.

Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60 to 70 dBA range, and high above 70 dBA.[7] Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA). Regarding increases in dBA, the following relationships should be noted:[8]

- Except in carefully controlled laboratory experiments, a 1-dBA change cannot be perceived by humans.
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference.
- A minimum 5-dBA change is required before any noticeable change in community response would be expected. A 5-dBA increase is typically considered substantial.
- A 10-dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

Effects of Noise on People

Hearing Loss. While physical damage to the ear from an intense noise impulse is rare, a degradation of auditory acuity can occur even within a community noise environment. Hearing loss occurs mainly due to chronic exposure to excessive noise but may be due to a single event such as an explosion. Natural hearing loss associated with aging may also be accelerated from chronic exposure to loud noise. The Occupational Safety and Health Administration has a noise exposure standard that is set at the noise threshold where hearing loss may occur from long-term exposures. The maximum allowable level is 90 dBA averaged over 8 hours. If the noise is above 90 dBA, the allowable exposure time is correspondingly shorter.[9]

[7] Compiled from James P. Cowan, *Handbook of Environmental Acoustics,* 1994, and Cyril M. Harris, *Handbook of Noise Control*, 1979.

[8] Compiled from California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, and Federal Highway Administration, *Noise Fundamentals,* 2017.

[9] U.S. Department of Labor, Occupational Safety and Health Standards, *29 CFR 1910* (Occupational Noise Exposure).

Annoyance. Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The L_{dn} as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and ground transportation noise. There continues to be disagreement about the relative annoyance of these different sources. A noise level of about 55 dBA L_{dn} is the threshold at which a substantial percentage of people begin to report annoyance.[10]

2.2 Groundborne Vibration

Sources of groundborne vibrations include natural phenomena (earthquakes, volcanic eruptions, sea waves, landslides, etc.) or man-made causes (explosions, machinery, traffic, trains, construction equipment, etc.). Vibration sources may be continuous (e.g., factory machinery) or transient (e.g., explosions). Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One is the peak particle velocity (PPV); another is the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave and is expressed in terms of inches-per-second (in/sec). The RMS velocity is defined as the average of the squared amplitude of the signal and is expressed in terms of velocity decibels (VdB). The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration.

Table 3: Human Reaction and Damage to Buildings for Continuous or Frequent Intermittent Vibrations**,** displays the reactions of people and the effects on buildings produced by continuous vibration levels. The annoyance levels shown in the table should be interpreted with care since vibration may be found to be annoying at much lower levels than those listed, depending on the level of activity or the individual's sensitivity. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. In high noise environments, which are more prevalent where groundborne vibration approaches perceptible levels, this rattling phenomenon may also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows.

Ground vibration can be a concern in instances where buildings shake, and substantial rumblings occur. However, it is unusual for vibration from typical urban sources such as buses and heavy trucks to be perceptible. Common sources for groundborne vibration are planes, trains, and construction activities such as earth moving which requires the use of heavy-duty earth moving equipment. For the purposes of this analysis, a PPV descriptor with units of inches per second (in/sec) is used to evaluate construction-generated vibration for building damage and human complaints.

[10] Federal Interagency Committee on Noise, *Federal Agency Review of Selected Airport Noise Analysis Issues*, August 1992.

Table 3: Human Reaction and Damage to Buildings for Continuous or Frequent Intermittent Vibrations

Maximum PPV (in/sec)	Vibration Annoyance Potential Criteria	Vibration Damage Potential Threshold Criteria	FTA Vibration Damage Criteria
0.008	--	Extremely fragile historic buildings, ruins, ancient monuments	--
0.01	Barely Perceptible	--	--
0.04	Distinctly Perceptible	--	--
0.1	Strongly Perceptible	Fragile buildings	--
0.12	--	--	Buildings extremely susceptible to vibration damage
0.2	--	--	Non-engineered timber and masonry buildings
0.25	--	Historic and some old buildings	--
0.3	--	Older residential structures	Engineered concrete and masonry (no plaster)
0.4	Severe	--	--
0.5	--	New residential structures, Modern industrial/commercial buildings	Reinforced-concrete, steel or timber (no plaster)

PPV = peak particle velocity; in/sec = inches per second; FTA = Federal Transit Administration

Source: California Department of Transportation, *Transportation and Construction Vibration Guidance Manual*, 2020, and Federal Transit administration, *Transit Noise and Vibration Assessment Manual*, 2018.

3 REGULATORY SETTING

To limit population exposure to physically or psychologically damaging as well as intrusive noise levels, the Federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise.

3.1 State of California

California Government Code

California Government Code Section 65302(f) mandates that the legislative body of each county and city adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines established by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of "normally acceptable," "conditionally acceptable," "normally unacceptable," and "clearly unacceptable" noise levels for various land use types. Single-family homes are "normally acceptable" in exterior noise environments up to 60 CNEL and "conditionally acceptable" up to 70 CNEL. Multiple-family residential uses are "normally acceptable" up to 65 CNEL and "conditionally acceptable" up to 70 CNEL. Schools, libraries, and churches are "normally acceptable" up to 70 CNEL, as are office buildings and business, commercial, and professional uses.

Title 24 – Building Code

The State's noise insulation standards are codified in the California Code of Regulations, Title 24: Part 1, Building Standards Administrative Code, and Part 2, California Building Code. These noise standards are applied to new construction in California for interior noise compatibility from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, hotel rooms, or hospitals, are located near major transportation noise sources, and where such noise sources create an exterior noise level of 65 dBA CNEL or higher. Acoustical studies that accompany building plans must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new multi-family residential buildings and habitable rooms (including hotels), the acceptable interior noise limit for new construction is 45 dBA CNEL.

3.2 Local

City of Menifee General Plan

The City of Menifee General Plan Noise Element contains the following goals and policies that address noise:

Noise Element N-1: Noise Sensitive Land Uses

Goal: N-1: Noise-sensitive land uses are protected from excessive noise and vibration exposure.

Policies and Regulation:

- **N-1.1:** Assess the compatibility of proposed land uses with the noise environment when preparing, revising, or reviewing development project applications.
- **N-1.2:** Require new projects to comply with the noise standards of local, regional, and state building code regulations, including but not limited to the city's Municipal Code, Title 24 of the

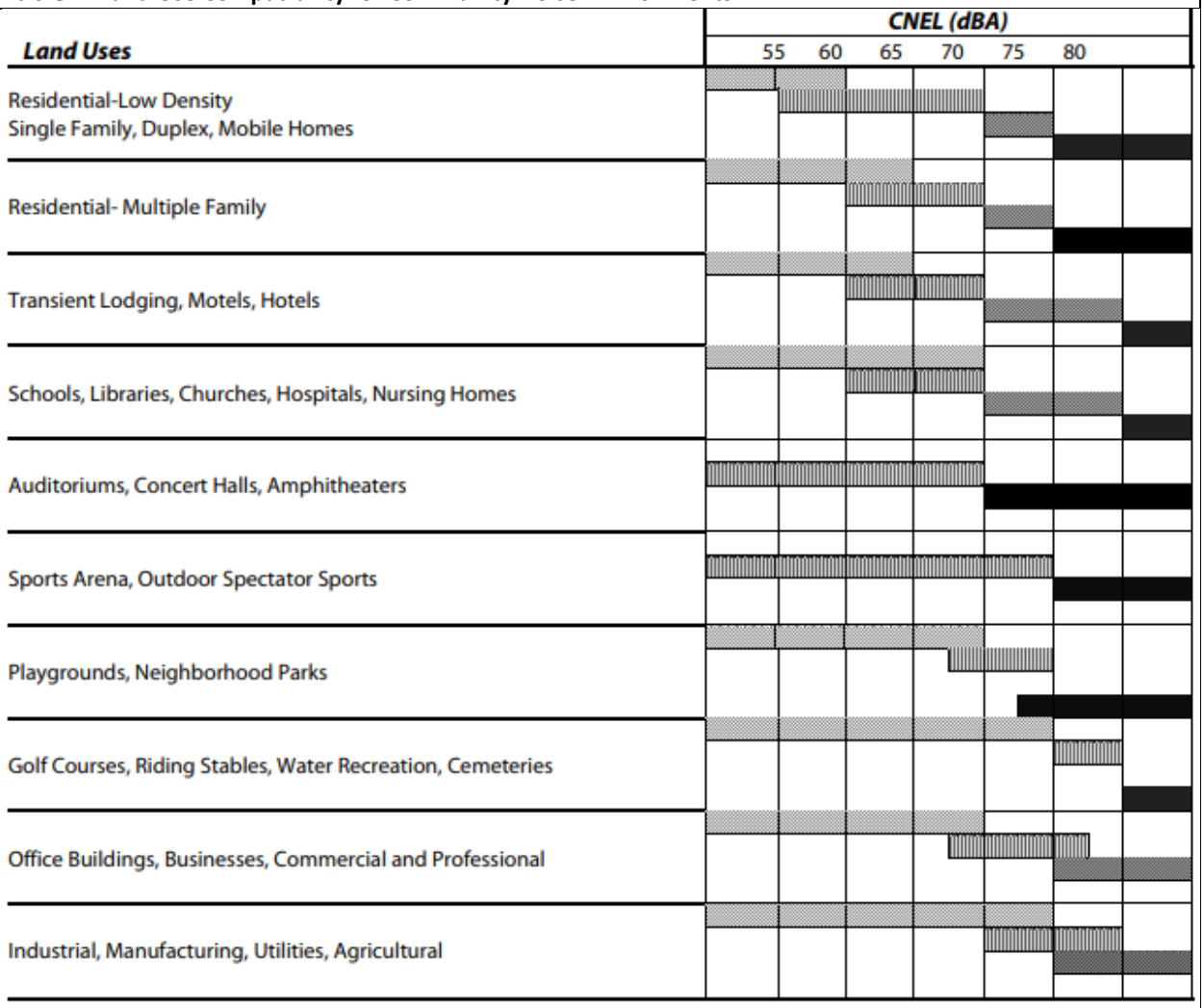
California Code of Regulations, the California Green Building Code, and subdivision and development codes.

- **N-1.3:** Require noise abatement measures to enforce compliance with any applicable regulatory mechanisms, including building codes and subdivision and zoning regulations, and ensure that the recommended mitigation measures are implemented.
- **N-1.4:** Regulate the control of nuisances, such as residential party noise and barking dogs, through the city's Municipal Code.
- **N-1.5:** Protect agricultural uses from noise complaints that may result from routine farming practices.
- **N-1.6:** Coordinate with the County of Riverside and adjacent jurisdictions to minimize noise impacts from adjacent land uses along the city's boundaries, especially its rural edges.
- **N-1.7:** Mitigate exterior and interior noises to the levels listed in the table below (*see Table 5 below*) to the extent feasible, for stationary sources adjacent to sensitive receptors:
- **N-1.8:** Locate new development in areas where noise levels are appropriate for the proposed uses. Consider federal, state, and city noise standards and guidelines as a part of new development review.
- **N-1.9:** Limit the development of new noise-producing uses adjacent to noise-sensitive receptors and require that new noise-producing land be are designed with adequate noise abatement measures.
- **N-1.10:** Guide noise-tolerant land uses into areas irrevocably committed to land uses that are noise-producing, such as transportation corridors adjacent to the I-215 or within the projected noise contours of any adjacent airports.
- **N-1.11:** Discourage the siting of noise-sensitive uses in areas in excess of 65 dBA CNEL without appropriate mitigation.
- **N-1.12:** Minimize potential noise impacts associated with the development of mixed-use projects (vertical or horizontal mixed-use) where residential units are located above or adjacent to noise-generating uses.
- **N-1.13:** Require new development to minimize vibration impacts to adjacent uses during demolition and construction.

Land Use Compatibility

The noise criteria identified in the City of Menifee Noise Element are guidelines to evaluate the land use compatibility of transportation related noise. The compatibility criteria, shown on Table 4: Land Use Compatibility for Community Noise Environments, provides the City with a planning tool to gauge the compatibility of land uses relative to existing and future exterior noise levels. The Land Use Compatibility for Community Noise Exposure matrix describes categories of compatibility and not specific noise standards.

Table 4: Land Use Compatibility for Community Noise Environments



Source: California Office of Noise Control. Guidelines for the Preparation and Content of Noise Elements of the General Plan. February 1976. Adapted from the US EPA Office of Noise Abatement Control, Washington D.C. Community Noise. Prepared by Wyle Laboratories. December 1971.

Source: City of Menifee, *City of Menifee General Plan Noise Background Document and Definitions*, Table N-b3.

City of Menifee Development Code

The Menifee Development Code (MDC), establishes the following noise provisions relative to the Project:

- All construction activities shall adhere to MDC Section 9.210.060(C), which requires projects within the City located within one-quarter of a mile from an occupied residence to operate Monday through Saturday, except nationally recognized holidays, from 6:30 a.m. to 7:00 p.m. and prohibits construction from occurring on Sunday or nationally recognized holidays unless approval is obtained from the City Building Official or City Engineer. Compliance with MDC Section 9.210.060(C) would reduce construction-related noise impacts.
- Menifee MC Section 9.09 (Noise Ordinance) provides exemptions for noise from certain sources. According to Section 9.09.020 – General Exemptions, exemptions relevant to the Project include:
    - Property maintenance including lawnmowers, leaf blowers, etc., provided such maintenance occurs between the hours of 7:00 a.m. and 8:00 p.m.
    - Motor vehicles, other than off-highway vehicles.
    - Heating and air conditioning equipment in proper repair.
- MDC Section 9.210.060(D) discusses the noise standards for stationary noise sources and states the following: No person shall create any sound, or allow the creation of any sound, on any property that causes the exterior and interior sound level on any other occupied property to exceed the sound level standards set forth in Table 5: City of Menifee Noise Ordinance Standards below.

Table 5: City of Menifee Stationary Source Noise Standards		
Land Use (Residential)	**Interior Standards**	**Exterior Standards**
10 p.m. - 7 a.m.	40 L_{eq} (10 minute)	45 L_{eq} (10 minute)
7 a.m. - 10 p.m.	55 L_{eq} (10 minute)	65 L_{eq} (10 minute)
Source: City of Menifee, *City of Menifee Development Code, Table 9.210.060-1 Stationary Source Noise Standards*, 2021.		

- MDC Section 9.210.060(B) – General Exemptions, provides exemptions for noise from certain sources. According to Section 9.210.060(B) – General Exemptions, exemptions relevant to the Project include:
    - Property maintenance including lawnmowers, leaf blowers, etc., provided such maintenance occurs between the hours of 7:00 a.m. and 8:00 p.m.
    - Motor vehicles, other than off-highway vehicles
    - Heating and air conditioning equipment in proper repair.

City of Menifee Design Guidelines – Appendix A: Industrial Good Neighbor Policies

According to the City's Design Guidelines, the purpose of the Good Neighbor Policies (Policies) is to provide local government and developers with ways to address environmental and neighborhood compatibility issues associated with permitting warehouse, logistics and distribution facilities. The Policies were designed to promote economic vitality and sustainability of businesses, while still protecting the general health, safety, and welfare of the public and sensitive receptors within the City of Menifee.

Sensitive receptors include residential neighborhoods, schools, public parks, playgrounds, day care centers, nursing homes, hospitals, and other public places where residents are most likely to spend time.

The intent of the City of Menifee's Good Neighbor Policies, in siting new warehouse, logistics and distribution uses, include:

1. Minimize impacts to sensitive uses
2. Protect public health, safety, and welfare by regulating the design, location and operation of facilities
3. Protect neighborhood character of adjacent communities

The Policies apply to all new warehouse, logistics and distribution facilities ("industrial uses"), excluding pending applications that have been deemed complete as the effective day of this policy, that include any building larger than 100,000 square feet in size or any sized building with more than 10 loading bays (dock high). There are general performance standards, as well as site design, access and layout standards, signage and information standards, and environmental considerations, including air quality and noise and traffic.

4 EXISTING CONDITIONS

4.1 Existing Noise Sources

The City is impacted by various noise sources. Mobile sources of noise, especially cars, trucks, and trains are the most common and significant sources of noise. Other noise sources are the various land uses (i.e., residential, commercial, institutional, and recreational and parks activities) throughout the City that generate stationary-source noise.

Mobile Sources

Existing roadway noise levels were calculated for the roadway segments in the Project vicinity. This task was accomplished using the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108) and existing traffic volumes from the Project Traffic Study (prepared by Kimley-Horn, September 2023). The noise prediction model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (also referred to as energy rates) used in the FHWA model have been modified to reflect average vehicle noise rates identified for California by the California Department of Transportation (Caltrans). The Caltrans data indicates that California automobile noise is 0.8 to 1.0 dBA higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dBA lower than national levels.

The average daily noise levels along roadway segments in proximity to the Project site are included in Table 6: Existing Traffic Noise Levels. Table 6 shows the existing traffic-generated noise level on Project-vicinity roadways currently ranges from 48.1 dBA CNEL to 72.3 dBA CNEL 100 feet from the centerline. As previously described, CNEL is 24-hour average noise level with a 5 dBA "weighting" during the hours of 7:00 p.m. to 10:00 p.m. and a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively.

Table 6: Existing Traffic Noise Levels

Roadway Segment		ADT	dBA CNEL 100 Feet from Roadway Centerline
Goetz Road	Ethanac Road to McLaughlin Road	7,546	65.5
Ethanac Road	Goetz Road to Wheat Street	13,909	68.0
	Wheat Street to Murrieta Road	14,059	68.5
	Murrieta Road to Evans Road	16,595	69.8
	Evans Road to Case Road	16,845	70.4
	Case Road to I-215 SB Ramps	24,114	72.3
	I-215 SB Ramps to I-215 NB Ramps	19,929	69.5
Wheat Street	Ethanac Road to McLaughlin Road	140	48.1

ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level

Source: Based on traffic data within the Traffic Study, prepared by Kimley-Horn, September 2023. Refer to Appendix B: Noise Modeling Data for traffic noise modeling assumptions and results.

Stationary Sources

The nearest sources of stationary noise in the Project vicinity are generated by existing single-family residential properties and industrial uses scattered around the Project site. Noise sources from residential uses typically include mechanical equipment such as HVAC, automobile related noise such as cars starting and doors slamming, and landscaping equipment. Noise sources from industrial uses typically include

mechanical equipment (e.g., HVAC and mechanical tools) truck idling, and truck maneuvering. The noise associated with these sources may represent a single-event noise occurrence or short-term noise.

4.2 Noise Measurements

To quantify existing ambient noise levels in the Project area, Kimley-Horn conducted five short-term noise measurements on October 4, 2023; see Appendix A: Existing Ambient Noise Measurements. The noise measurement sites were representative of typical existing noise exposure within and immediately adjacent to the Project site. The 10-minute measurements were taken between 9:48 a.m. and 11:06 a.m. Measurements of L_{eq} are considered representative of the noise levels throughout the day. The average noise levels and sources of noise measured at each location are listed in Table 7: Existing Noise Measurements and shown on Exhibit 6: Short-Term Noise Measurement Locations.

Table 7: Existing Noise Measurements

Site	Location	Measurement Period	Duration	L_{eq} (dBA)
ST-1	Southwest corner of Corsica Lane and Wheat Street.	10:07 – 10:17 a.m.	10 Minutes	50.2
ST-2	Corner of Headlands Way and Tower Lane, west of Project Site 1.	10:56 – 11:06 a.m.	10 Minutes	52.1
ST-3	End of Ruffian Road, northwest of Project Site 2.	10:40 – 10:50 a.m.	10 Minutes	54.3
ST-4	East of Wheat Street, close to southeast corner of Project Site 2.	10:23– 10:33 a.m.	10 Minutes	48.7
ST-5	East side of Hull Street, approximately 300 feet south of Ethanac Road.	09:48 – 09:58 a.m.	10 Minutes	51.1

Source: Noise measurements taken by Kimley-Horn, October 4, 2023. See Appendix A for noise measurement results.

4.3 Sensitive Receptors

Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. Noise sensitive uses typically include residences, hospitals, schools, childcare facilities, and places of assembly. Vibration sensitive receivers are generally similar to noise sensitive receivers but may also include businesses, such as research facilities and laboratories that use vibration-sensitive equipment. The Project consists of three individual sites which are surrounded by scattered single-family residences, few commercial uses, and vacant lands. Sensitive land uses nearest to the Project are shown in Table 8: Sensitive Receptors.

Table 8: Sensitive Receptors

Receptor Description	Distance and Direction from the Project[1]
Project Site 1 (Corsica Lane)	
Single-family Residence	Adjacent, to the east
Single-family Residences	30 feet to the east
Single-family Residence	85 feet to the west
Single-family Residences	440 feet to the southwest
Project Site 2 (Wheat Street)	
Single-family Residences	Adjacent, to the west
Single-family Residences	Adjacent, to the south
Single-family Residences	370 feet to the northeast
Project Site 3 (Evans Road)	
Single-family Residence	675 feet to the west

Notes:
1. Distances have been measured from nearby receptor buildings to the boundary of the Project Site.

Source: Google Earth, 2023.

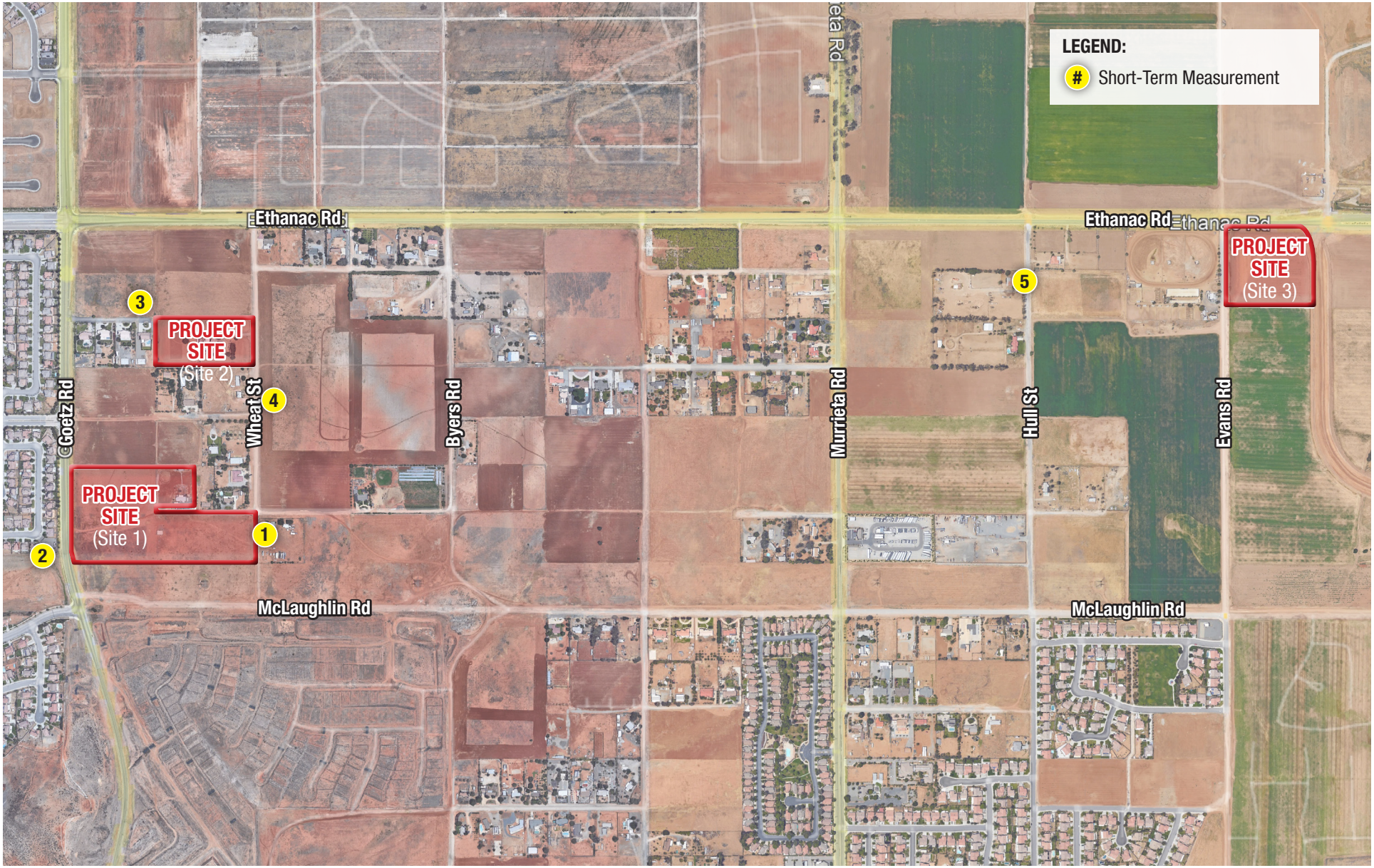


EXHIBIT 6: Short-Term Noise Measurement Locations
Menifee Compass Northern Gateway Warehouses Project
City of Menifee

Not to Scale

Kimley»Horn
Expect More. Experience Better.

5 SIGNIFICANCE CRITERIA AND METHODOLOGY

5.1 CEQA Thresholds

Appendix G of the California Environmental Quality Act (CEQA) Guidelines contains analysis guidelines related to noise impacts. These guidelines have been used by the City to develop thresholds of significance for this analysis. A project would create a significant environmental impact if it would result in:

- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Generation of excessive ground-borne vibration or ground-borne noise levels; and
- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

Thresholds

Construction Noise

The City of Menifee does not establish quantitative construction noise standards and only limits the construction activities timeframe; therefore, this analysis conservatively uses the FTA's threshold of 80 dBA (8-hour L_{eq}) for residential uses and 90 dBA (8-hour L_{eq}) for non-residential uses to evaluate construction noise impacts.[11]

Operational Noise

Operational noise is evaluated based on the standards within the MDC and General Plan. MDC Section 9.210.060(D) identifies a daytime (7:00 a.m. – 10:00 p.m.) standard of 55 dBA (interior) and 65 dBA (exterior) for residential receptors and a nighttime (10:00 p.m. – 7:00 a.m.) standard of 40 dBA (interior) and 45 dBA (exterior); refer to Table 5.

The City provides noise and land use compatibility standards (i.e., noise standards using a 24-hour metric such as L_{dn} or CNEL and with Normally Acceptable, Conditionally Acceptable, Normally Unacceptable, and Clearly Unacceptable designations) in the City of Menifee General Plan Noise Background Document and Definitions document. A potentially significant impact would occur if the Project would cause ambient noise levels to increase by 3 dBA CNEL or more and the resulting noise falls on a noise-sensitive land use that exceeds the noise and land use compatibility standards (i.e., causing the noise level of a noise sensitive land use within an area to be categorized as either "Normally Unacceptable" or "Clearly Unacceptable"). Note that noise level changes less than 3 dBA are not detectable by the human ear.

Noise levels up to 60 dBA CNEL are considered Normally Acceptable and noise levels up to 70 dBA CNEL are considered Conditionally Acceptable for single-family residential uses. Meeting the conditionally acceptable standards are appropriate as long as the 45 dBA interior noise standard can be met. Therefore, the proposed Project would result in a potentially significant traffic noise impact if Project traffic would

[11] Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, Table 7-2, Page 179, September 2018.

increase the baseline traffic noise level by 3 dBA CNEL and exceed the applicable land use compatibility standard. The environmental baseline is the Without Project condition.

Vibration

The City currently does not have a significance threshold to assess vibration impacts. The Caltrans 2020 Transportation and Construction Vibration Guidance Manual identifies the vibration threshold for human annoyance, vibrations levels of 0.4 in/sec PPV is when vibrations are considered severe by people subjected to continuous vibrations and levels of 0.2 in/sec is used for building damage.

5.2 Methodology

Construction

Construction noise levels were based on typical noise levels generated by construction equipment published by the Federal Transit Administration (FTA) and the Federal Highway Administration (FHWA). Construction noise is assessed in dBA L_{eq}. This unit is appropriate because L_{eq} can be used to describe noise level from operation of each piece of equipment separately, and levels can be combined to represent the noise level from all equipment operating during a given period.

Construction noise modeling was conducting using the FHWA Roadway Construction Noise Model (RCNM) and SoundPLAN. SoundPLAN computes noise levels at noise sensitive areas through a series of adjustments to reference sound levels. SoundPLAN also accounts for topography, groundcover type, and intervening structures. Reference noise levels are used to estimate construction noise levels at nearby sensitive receptors based on a standard noise attenuation rate of 6 dB per doubling of distance (line-of-sight method of sound attenuation for point sources of noise). Noise level estimates do not account for the presence of intervening structures or topography, which may reduce noise levels at receptor locations. Therefore, the noise levels presented herein represent a conservative, reasonable worst-case estimate of actual temporary construction noise. The City of Menifee does not establish quantitative construction noise standards. As noted above, this analysis conservatively uses the FTA's threshold of 80 dBA (8-hour L_{eq}) for residential uses and 90 dBA (8-hour L_{eq}) for non-residential uses to evaluate construction noise impacts.

Operations

The analysis of the Without Project and With Project noise environments is based on noise prediction modeling and empirical observations. Reference noise level data are used to estimate the Project operational noise impacts from stationary sources. Noise levels are collected from field noise measurements and other published sources from similar types of activities are used to estimate noise levels expected with the Project's stationary sources. The reference noise levels are used to represent a worst-case noise environment as noise level from stationary sources can vary throughout the day. On-site operational noise levels from the proposed Project were evaluated using SoundPLAN. Reference noise levels are used to estimate the Project's operational noise impacts from stationary sources. Operational noise is evaluated based on the standards within the MDC and General Plan.

An analysis was conducted of the Project's effect on traffic noise conditions at off-site land uses. Without Project traffic noise levels were compared to With Project traffic noise levels. The environmental baseline is the Without Project condition. The Without Project and With Project traffic noise levels in the Project

vicinity were calculated using the FHWA Highway Noise Prediction Model (FHWA-RD-77-108). The actual sound level at any receptor location is dependent upon such factors as the source-to-receptor distance and the presence of intervening structures (walls and buildings), barriers, and topography. The noise attenuating effects of changes in elevation, topography, and intervening structures were not included in the model. Therefore, the modeling effort is considered a worst-case representation of the roadway noise. In general, a 3-dBA increase in traffic noise is barely perceptible to people, while a 5-dBA increase is readily noticeable.

Vibration

Ground-borne vibration levels associated with construction-related activities for the Project were evaluated utilizing typical ground-borne vibration levels associated with construction equipment, obtained from FTA published data for construction equipment. Potential ground-borne vibration impacts related to building/structure damage and interference with sensitive existing operations were evaluated, considering the distance from construction activities to nearby land uses and typically applied criteria.

For a structure built traditionally, without assistance from qualified engineers, the FTA guidelines show that a vibration level of up to 0.20 in/sec is considered safe and would not result in any vibration damage. FTA guidelines show that modern engineered buildings built with reinforced-concrete, steel or timber can withstand vibration levels up to 0.50 in/sec and not experience vibration damage. The Caltrans 2020 *Transportation and Construction Vibration Guidance Manual* identifies the vibration threshold for human annoyance, vibrations levels of 0.4 in/sec PPV is when vibrations are considered severe by people subjected to continuous vibrations and levels of 0.2 in/sec is used for building damage.

6 POTENTIAL IMPACTS AND MITIGATION

6.1 Acoustical Impacts

Threshold 6.1 Would the Project result in a generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction

On-Site Construction Noise. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation, paving). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. During construction, exterior noise levels could affect the residential neighborhoods surrounding the construction site. However, it is acknowledged that construction activities would occur throughout the Project site and would not be concentrated at a single point near sensitive receptors.

Construction activities would include site preparation, grading, infrastructure improvements, building construction, paving, and architectural coating. Such activities could require dozers and tractors during site preparation; excavators, graders, dozers, tractors, and scrapers during grading; tractors, pavers, and rollers during infrastructure improvements; cranes, generators, tractors, and welders during building construction; pavers, rollers, and a pavement scarafier during paving; and air compressors during architectural coating. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 to 4 minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). Typical noise levels associated with individual construction equipment are listed in Table 9: Typical Construction Noise Levels.

Table 9: Typical Construction Noise Levels

Equipment	Typical Noise Level (dBA) at 50 feet from Source
Air Compressor	80
Backhoe	80
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane, Mobile	83
Dozer	85
Generator	82
Grader	85
Impact Wrench	85
Jack Hammer	88
Loader	80
Paver	85
Pneumatic Tool	85
Pump	77
Roller	85
Saw	76
Scraper	85

Table 9: Typical Construction Noise Levels	
Equipment	**Typical Noise Level (dBA) at 50 feet from Source**
Shovel	82
Truck	84
Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.	

The MDC does not establish quantitative exterior construction noise standards however, Section 9.210.060 states that construction activities within one-quarter mile of an occupied residence can only occur Monday through Saturday, except nationally recognized holidays, from 6:30 a.m. to 7:00 p.m. While the MDC does not establish quantitative construction noise standards, this analysis conservatively uses the FTA's threshold of 80 dBA (8-hour L_{eq}) for residential uses and 90 dBA (8-hour L_{eq}) for non-residential uses to evaluate construction noise impacts.[12] Standard construction provides 25 dBA of exterior-to-interior noise attenuation with windows closed and 15 dBA with windows open.[13] Therefore, it can be assumed that exterior noise levels of 80 dBA would equal 55 dBA when measured from the interior with windows closed.

Project Construction Noise Levels

The noise levels calculated in Table 10: Project Construction Noise Levels, show the Project's highest estimated construction noise levels (by phase) at the nearest off-site uses. Construction noise levels were calculated using the SoundPLAN 3D modeling software. Construction equipment reference noise levels were obtained from the FTA Noise and Vibration Manual (see Table 9 above) and were input into SoundPLAN for each construction phase. Construction equipment was modeled as an area source in SoundPLAN in acknowledgment that construction activities would occur throughout the Project site and would not be concentrated at the point closest to sensitive receptors or other off-site properties.

Table 10: Project Construction Noise Levels

Construction Phase	Receiving Land Use	FTA's Construction Noise Threshold, dBA $L_{eq(8\text{-}hr)}$	Without Noise Barrier		With Noise Barrier	
			Highest Noise Level Without Mitigation (dBA L_{eq})[1]	Exceeded?	Noise Level with Mitigation[1,2] (dBA L_{eq})	Exceeded?
Site Preparation	Residential	80	78.8	No	78.8	No
Grading	Residential	80	78.5	No	78.5	No
Building Construction	Residential	80	77.9	No	77.9	No
Paving	Residential	80	81.9	Yes	76.3	No
Architectural Coating	Residential	80	65.4	No	65.4	No

Notes:
1. The maximum modeled noise level for the nearest receiving property is reported.
2. Mitigation Measure NOI-1 requires an 8-foot-high temporary noise barrier along the eastern, southern, and western boundary of Site 2 as depicted in Exhibit 7.

Source: SoundPLAN Essential version 5.1. Refer to Appendix B for noise modeling results.

As shown in Table 10, unmitigated construction noise levels from the Project would range between 65.4 dBA and 81.9 dBA. Since the Project's unmitigated construction noise levels would exceed 80 dBA (during the paving phase), mitigation is necessary to reduce impacts.

Mitigation Measure NOI-1 (**MM NOI-1**) requires the use of an 8-foot-high temporary noise barrier with a minimum sound transmission class (STC) of 25 along the northern and eastern boundary of Site 1, and

[12] Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, Table 7-2, Page 179, September 2018.
[13] United States Environmental Protection Agency, *Protective Noise Levels (EPA 550/9-79-100)*, 1979.

along the eastern, southern, and western boundary of Site 2; see Exhibit 7: Site 1 Temporary Construction Noise Barrier Location and Exhibit 8: Site 2 Temporary Construction Noise Barrier Location. As indicated in Table 10, 8-foot-high temporary noise barriers would reduce construction noise levels by approximately 4-6 dBA at the nearest off-site properties and would result in noise levels below the FTA's 80 dBA L_{eq} noise standard. Therefore, construction noise impacts from the Project would be less than significant with implementation of **MM NOI-1**.

Operations

Implementation of the proposed Project would create new sources of noise in the Project vicinity. The major noise sources associated with the Project would include:

- Mechanical equipment (i.e., trash compactors, air conditioners);
- On-Site Traffic (i.e., on-site passenger cars and truck movements);
- Parking areas (i.e., car door slamming, car radios, engine start-up, and car pass-by); and
- Off-site traffic noise.

Each noise source is discussed in more detail below.

On-Site Operational Noise Sources

Mechanical Equipment

Potential stationary noise sources related to long-term operation of the Project would include mechanical equipment such as rooftop heating, ventilation, and air conditioning (HVAC) units. HVAC mechanical equipment generates noise levels of approximately 52 dBA at 50 feet.[14] A total of 71 rooftop HVAC units (between 7 and 18 HVAC units at each warehouse building) were modeled as point sources throughout the rooftops of the proposed warehouse buildings in SoundPLAN. This equipment would run continuously to regulate the temperature of the building.

On-Site Truck Traffic

On-site Project traffic would consist of trucks traveling to and from the truck loading docks at each Project Site. On-site vehicle movements from heavy trucks were modeled as a roadway noise source using daily trip generation data from the Project Traffic Study (prepared by Kimley-Horn, September 2023). Heavy truck traffic at 15 miles per hour generates an hourly noise level of approximately 64.3 dBA $L_{eq(h)}$ at a distance of 50 feet away from a frequency of one truck per minute (46.5 dBA $L_{eq(h)}$ from one truck per hour).[15] According to the Project Traffic Study, peak hour truck traffic volumes would be 13 trucks at Site 1, 4 trucks at Site 2, and 7 trucks at Site 3. Truck deliveries are anticipated to occur during normal daytime hours (between 7:00 am and 10:00 pm) and during nighttime hours (between 10:00 p.m. and 7:00 a.m.). Noise from truck delivery movements on the proposed site were modeled in SoundPLAN.

[14] Elliott H. Berger, Rick Neitzel, and Cynthia A. Kladden, *Noise Navigator Sound Level Database with Over 1700 Measurement Values*, 2015.

[15] Federal Highway Administration, *Federal Highway Traffic Noise Prediction Model, FHWA-RD77-108*, 1978.

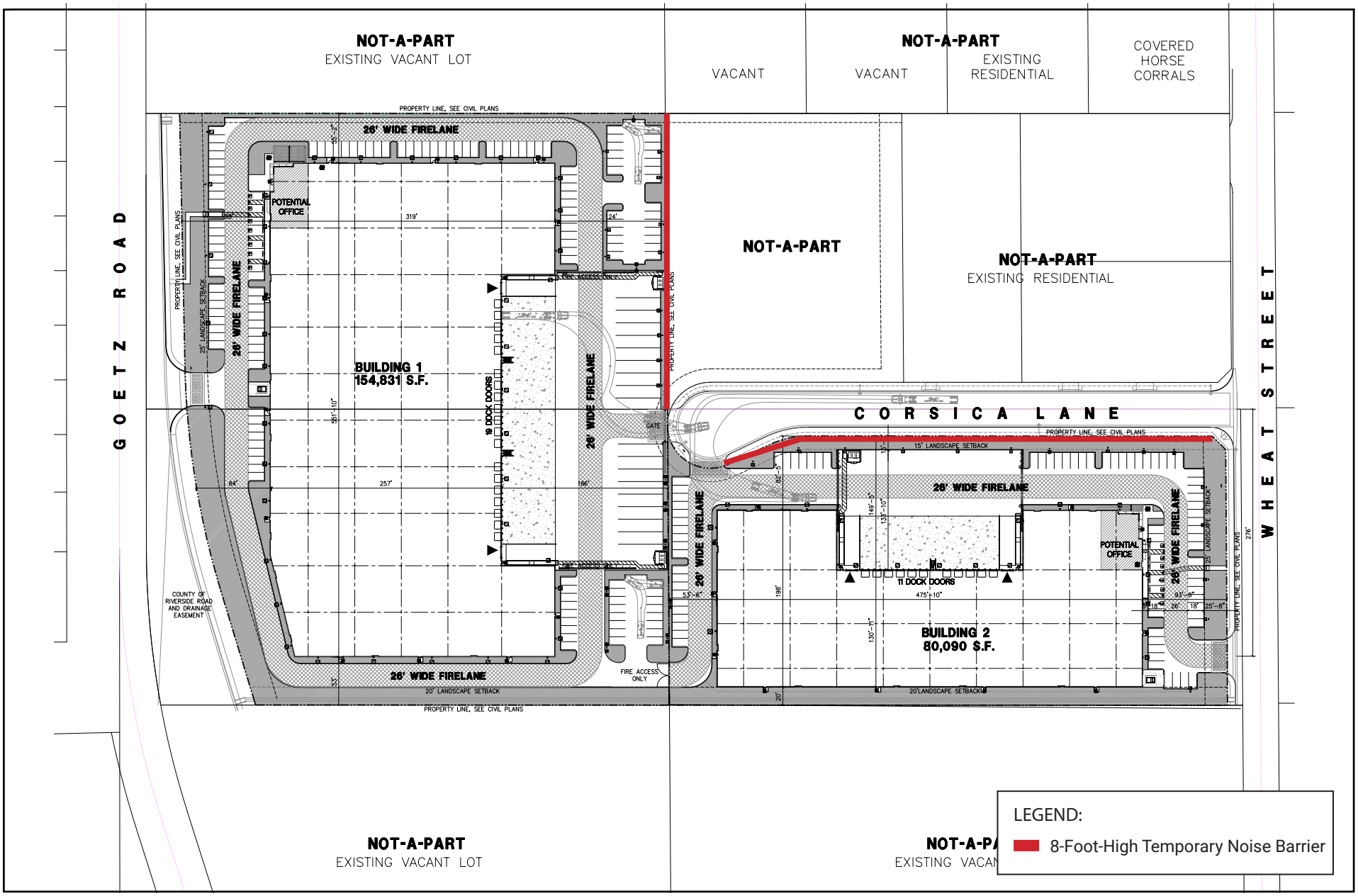


EXHIBIT 7: Site 1 Construction Noise Barrier Location

Menifee Compass Northern Gateway Warehouses Project

City of Menifee

Not to Scale

Kimley»Horn

Expect More. Experience Better.

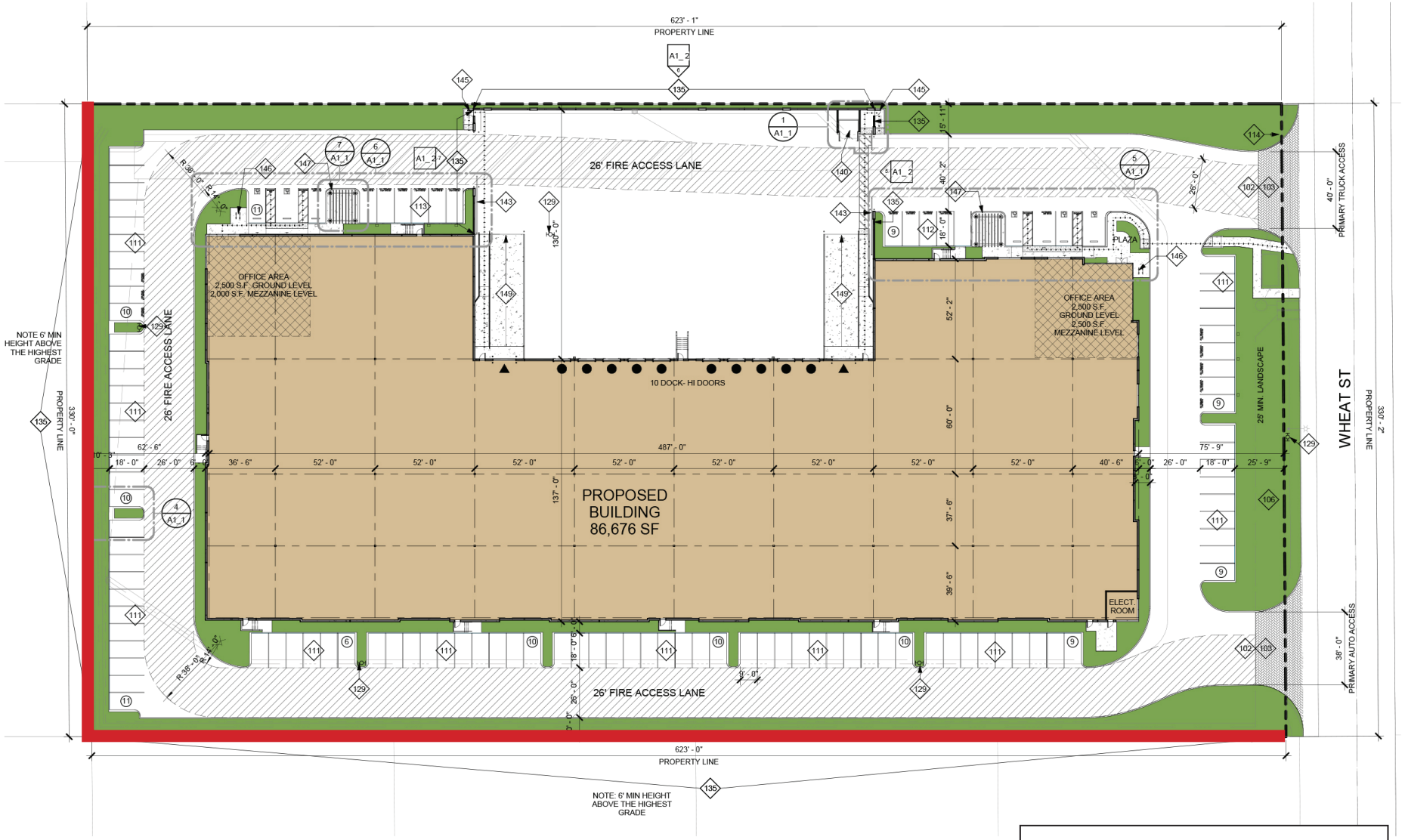


EXHIBIT 8: Site 2 Construction Noise Barrier Location

Menifee Compass Northern Gateway Warehouses Project

City of Menifee

Not to Scale

Kimley»Horn

Expect More. Experience Better.

Parking Areas

Automobile parking stalls would be located on the perimeter of the Project Site and truck trailer parking stalls would be located on the warehouse building facades. The Project Traffic Study indicated maximum peak traffic volumes of 35 passenger vehicles at Site 1, 11 passenger vehicles at Site 2, and 18 passenger vehicles at Site 3. Traffic associated with parking lots is typically not of sufficient volume to exceed community noise standards, which are usually based on a time-averaged scale such as the CNEL or L_{eq} scale (e.g., MDC Section 9.210.060(D) utilizes a 10-minute L_{eq} scale). The maximum sound levels generated by a car door slamming, engine starting up, and car pass-bys range from 53 to 61 dBA[16] and may be an annoyance to adjacent noise-sensitive receptors. However, parking noise events would be instantaneous and short-term in duration. Noise from on-site parking lot movements were modeled as parking lot sources in SoundPLAN.

Combined On-Site Noise Levels

The noise levels associated with mechanical equipment, on-site vehicle circulation, and parking lot noise were modeled with the SoundPLAN software. SoundPLAN allows computer simulations of noise situations, and creates noise contour maps using reference noise levels, topography, point and area noise sources, mobile noise sources, and intervening structures. Inputs to the SoundPLAN model included ground topography and ground type, existing and proposed intervening structures, noise source locations and heights, receiver locations, and sound power level data. The SoundPLAN run for Project operations conservatively assumes the simultaneous operation of all on-site noise sources by time period.

Utilizing the reference noise level data described above, SoundPLAN was used to calculate noise levels at the nearest sensitive receptors surrounding the Project Site. It should be noted that predicted noise levels are conservative estimates since it was assumed that all equipment and operational activity at the Project site would occur in a constant, simultaneous manner during the daytime and nighttime hours. In reality, it is anticipated that most of these noise sources would occur intermittently throughout the day and night (except for rooftop HVAC which would operate in a steady-state manner). The modeled Project noise levels are provided in Table 11: Unmitigated Operational Noise Levels.

Table 11: Unmitigated Operational Noise Levels

Receptor No.	Land Use	Daytime			Nighttime		
		Modeled Noise Level, dBA L_{eq}	City Noise Standard, dBA L_{eq}	Exceeds Standard?	Modeled Noise Level, dBA L_{eq}	City Noise Standard, dBA L_{eq}	Exceeds Standard?
1	Residential	37.8	65	No	37.8	45	No
2	Residential	38.4	65	No	38.4	45	No
3	Residential	38.9	65	No	38.8	45	No
4	Residential	40.0	65	No	39.9	45	No
5	Residential	40.3	65	No	40.3	45	No
6	Residential	40.3	65	No	40.3	45	No
7	Residential	40.0	65	No	40.0	45	No
8	Residential	39.8	65	No	39.7	45	No
9	Residential	39.7	65	No	39.7	45	No
10	Residential	37.9	65	No	37.9	45	No
11	Residential	38.6	65	No	38.6	45	No
12	Residential	39.2	65	No	39.1	45	No

[16] Kariel, H. G., *Noise in Rural Recreational Environments*, Canadian Acoustics 19(5), 3-10, 1991.

Table 11: Unmitigated Operational Noise Levels

Receptor No.	Land Use	Daytime			Nighttime		
		Modeled Noise Level, dBA L_{eq}	City Noise Standard, dBA L_{eq}	Exceeds Standard?	Modeled Noise Level, dBA L_{eq}	City Noise Standard, dBA L_{eq}	Exceeds Standard?
13	Residential	39.1	65	No	39.0	45	No
14	Residential	38.7	65	No	38.6	45	No
15	Residential	38.3	65	No	38.3	45	No
16	Residential	38.1	65	No	38.0	45	No
17	Residential	37.6	65	No	37.5	45	No
18	Residential	37.2	65	No	37.1	45	No
19	Residential	36.7	65	No	36.7	45	No
20	Residential	36.4	65	No	36.3	45	No
21	Residential	35.8	65	No	35.7	45	No
22	Residential	42.4	65	No	41.3	45	No
23	Residential	43.2	65	No	42.2	45	No
24	Residential	43.6	65	No	42.7	45	No
25	Residential	43.7	65	No	43.0	45	No
26	Residential	43.9	65	No	43.1	45	No
27	Residential	43.6	65	No	42.8	45	No
28	Residential	43.5	65	No	42.7	45	No
29	Residential	43.7	65	No	42.7	45	No
30	Residential	42.7	65	No	42.0	45	No
31	Residential	42.3	65	No	41.5	45	No
32	Residential	42.7	65	No	42.0	45	No
33	Residential	42.7	65	No	40.9	45	No
34	Residential	41.2	65	No	40.8	45	No
35	Residential	40.5	65	No	40.1	45	No
36	Residential	39.9	65	No	39.5	45	No
37	Residential	35.9	65	No	35.8	45	No
38	Residential	36.5	65	No	36.5	45	No
39	Residential	37.4	65	No	37.4	45	No
40	Residential	38.9	65	No	38.8	45	No
41	Residential	38.5	65	No	38.4	45	No
42	Residential	37.6	65	No	37.6	45	No
43	Residential	36.9	65	No	36.9	45	No
44	Residential	56.7	65	No	52.0	45	**Yes**
45	Residential	56.6	65	No	51.9	45	**Yes**
46	Residential	55.1	65	No	50.4	45	**Yes**
47	Residential	51.8	65	No	47.9	45	**Yes**
48	Residential	49.4	65	No	46.1	45	**Yes**
49	Residential	47.2	65	No	44.5	45	No
50	Residential	47.0	65	No	44.4	45	No
51	Residential	46.4	65	No	44.1	45	No
52	Residential	46.2	65	No	43.6	45	No
53	Residential	45.1	65	No	43.0	45	No
54	Residential	42.1	65	No	41.0	45	No
55	Residential	45.3	65	No	43.4	45	No
56	Residential	44.5	65	No	43.0	45	No
57	Residential	42.6	65	No	40.6	45	No
58	Residential	46.8	65	No	43.2	45	No
59	Residential	52.4	65	No	48.0	45	**Yes**
60	Residential	46.9	65	No	43.6	45	No
61	Residential	39.1	65	No	38.2	45	No
62	Residential	37.8	65	No	37.2	45	No
63	Residential	37.3	65	No	36.6	45	No
64	Residential	36.5	65	No	36.0	45	No
65	Residential	35.5	65	No	35.1	45	No

Table 11: Unmitigated Operational Noise Levels

Receptor No.	Land Use	Daytime			Nighttime		
		Modeled Noise Level, dBA L_{eq}	City Noise Standard, dBA L_{eq}	Exceeds Standard?	Modeled Noise Level, dBA L_{eq}	City Noise Standard, dBA L_{eq}	Exceeds Standard?
66	Residential	34.6	65	No	34.4	45	No
67	Residential	33.5	65	No	33.3	45	No
68	Residential	39.0	65	No	38.0	45	No
69	Residential	39.4	65	No	38.2	45	No
70	Residential	38.6	65	No	37.9	45	No
71	Residential	36.9	65	No	36.4	45	No
72	Residential	37.1	65	No	36.7	45	No
73	Residential	37.4	65	No	37.0	45	No
74	Residential	36.4	65	No	36.1	45	No
75	Residential	35.4	65	No	35.1	45	No
76	Residential	34.2	65	No	34.0	45	No
77	Residential	33.0	65	No	32.8	45	No
78	Residential	32.7	65	No	32.5	45	No
79	Residential	31.3	65	No	31.1	45	No
80	Residential	30.5	65	No	30.4	45	No
81	Residential	29.8	65	No	29.7	45	No
82	Residential	29.1	65	No	29.0	45	No
83	Residential	28.6	65	No	28.5	45	No
84	Residential	28.4	65	No	28.2	45	No
85	Residential	29.6	65	No	29.5	45	No
86	Residential	29.0	65	No	28.8	45	No
87	Residential	28.6	65	No	28.4	45	No
88	Residential	28.3	65	No	28.1	45	No
89	Residential	28.3	65	No	28.1	45	No
90	Residential	31.2	65	No	31.0	45	No
91	Residential	31.2	65	No	30.9	45	No
92	Residential	28.2	65	No	27.9	45	No
93	Residential	28.0	65	No	27.7	45	No
94	Residential	27.7	65	No	27.5	45	No
95	Residential	27.5	65	No	27.3	45	No
96	Residential	27.2	65	No	27.0	45	No
97	Residential	27.1	65	No	26.9	45	No
98	Residential	27.0	65	No	26.9	45	No
99	Residential	27.1	65	No	27.0	45	No
100	Residential	27.3	65	No	27.2	45	No
101	Residential	27.6	65	No	27.5	45	No
102	Residential	27.9	65	No	27.8	45	No
103	Residential	27.9	65	No	27.7	45	No
104	Residential	28.2	65	No	28.0	45	No
105	Residential	28.4	65	No	28.2	45	No
106	Residential	28.5	65	No	28.4	45	No
107	Residential	29.2	65	No	29.1	45	No
108	Residential	30.0	65	No	30.0	45	No
109	Residential	31.0	65	No	30.9	45	No
110	Residential	29.7	65	No	29.6	45	No
111	Residential	28.6	65	No	28.5	45	No
112	Residential	29.2	65	No	29.1	45	No
113	Residential	29.7	65	No	29.6	45	No
114	Residential	30.4	65	No	30.3	45	No
115	Residential	31.2	65	No	31.1	45	No
116	Residential	55.6	65	No	51.1	45	**Yes**
117	Residential	55.2	65	No	50.7	45	**Yes**
118	Residential	54.9	65	No	50.6	45	**Yes**

Table 11: Unmitigated Operational Noise Levels

Receptor No.	Land Use	Daytime			Nighttime		
		Modeled Noise Level, dBA L_{eq}	City Noise Standard, dBA L_{eq}	Exceeds Standard?	Modeled Noise Level, dBA L_{eq}	City Noise Standard, dBA L_{eq}	Exceeds Standard?
119	Residential	50.1	65	No	46.6	45	Yes
120	Residential	47.6	65	No	45.0	45	No

Source: SoundPLAN Essential Version 5.1. Refer to Appendix B for receptor locations and noise modeling results.

Section 9.210.060(D) of the MDC establishes an exterior daytime limit of 65 dBA L_{eq} and an exterior nighttime limit of 45 dBA L_{eq} for noise sources. As shown in Table 11, Project-generated noise levels at the nearest off-site properties would range from 27.0 dBA L_{eq} to 56.7 dBA L_{eq} during the daytime and would not exceed the MDC noise limit of 65 dBA L_{eq}. Project-generated noise levels during the nighttime would range from 26.9 dBA L_{dn} to 52.0 dBA L_{eq} and would exceed the MDC noise limit of 45 dBA L_{eq}. Specifically, nighttime operational noise levels at Project Site 1 would exceed the City's nighttime noise standards at the single-family residence directly east/north of Project Site 1 site along Corsica Lane. Thus, mitigation is needed to reduce nighttime operational noise levels below City standards.

In order to reduce operational noise levels emanating from Project Site 1 and in compliance with **MM NOI-2**, the proposed Project shall construct a 12-foot-high absorptive noise barrier along the eastern property line of Building 1 and northern property line of Building 2; see Exhibit 9: Site 1 Operational Noise Barrier Locations. As shown in Table 12: Mitigated Operational Noise Levels, with implementation of **MM NOI-2**, nighttime noise levels from the Project would reach a maximum of 44.9 dBA L_{eq} and would not exceed the City's 45 dBA L_{eq} nighttime noise standard for residential uses. Therefore, with implementation of **MM NOI-2**, on-site operational noise impacts from the proposed Project would be less than significant.

Table 12: Mitigated Operational Noise Levels

Receptor No.	Land Use	Daytime			Nighttime		
		Modeled Noise Level, dBA L_{eq}	City Noise Standard, dBA L_{eq}	Exceeds Standard?	Modeled Noise Level, dBA L_{eq}	City Noise Standard, dBA L_{eq}	Exceeds Standard?
1	Residential	37.8	65	No	37.8	45	No
2	Residential	38.4	65	No	38.4	45	No
3	Residential	38.9	65	No	38.8	45	No
4	Residential	40.0	65	No	39.9	45	No
5	Residential	40.3	65	No	40.3	45	No
6	Residential	40.3	65	No	40.3	45	No
7	Residential	40.0	65	No	40.0	45	No
8	Residential	39.8	65	No	39.7	45	No
9	Residential	39.7	65	No	39.6	45	No
10	Residential	37.9	65	No	37.9	45	No
11	Residential	38.6	65	No	38.6	45	No
12	Residential	39.1	65	No	39.1	45	No
13	Residential	39.0	65	No	39.0	45	No
14	Residential	38.6	65	No	38.6	45	No
15	Residential	38.3	65	No	38.3	45	No
16	Residential	38.0	65	No	38.0	45	No
17	Residential	37.6	65	No	37.5	45	No
18	Residential	37.1	65	No	37.1	45	No
19	Residential	36.7	65	No	36.7	45	No
20	Residential	36.3	65	No	36.3	45	No
21	Residential	35.7	65	No	35.7	45	No

Table 12: Mitigated Operational Noise Levels

Receptor No.	Land Use	Daytime			Nighttime		
		Modeled Noise Level, dBA L_{eq}	City Noise Standard, dBA L_{eq}	Exceeds Standard?	Modeled Noise Level, dBA L_{eq}	City Noise Standard, dBA L_{eq}	Exceeds Standard?
22	Residential	42.3	65	No	41.3	45	No
23	Residential	43.0	65	No	42.1	45	No
24	Residential	43.3	65	No	42.6	45	No
25	Residential	43.5	65	No	42.9	45	No
26	Residential	43.6	65	No	43.0	45	No
27	Residential	43.4	65	No	42.8	45	No
28	Residential	43.4	65	No	42.6	45	No
29	Residential	43.4	65	No	42.6	45	No
30	Residential	42.4	65	No	41.9	45	No
31	Residential	42.1	65	No	41.4	45	No
32	Residential	42.5	65	No	41.9	45	No
33	Residential	42.6	65	No	40.8	45	No
34	Residential	40.8	65	No	40.6	45	No
35	Residential	40.1	65	No	40.0	45	No
36	Residential	39.4	65	No	39.3	45	No
37	Residential	35.8	65	No	35.8	45	No
38	Residential	36.5	65	No	36.5	45	No
39	Residential	37.4	65	No	37.4	45	No
40	Residential	38.9	65	No	38.8	45	No
41	Residential	38.4	65	No	38.4	45	No
42	Residential	37.6	65	No	37.6	45	No
43	Residential	36.9	65	No	36.8	45	No
44	Residential	44.5	65	No	43.9	45	No
45	Residential	44.4	65	No	43.9	45	No
46	Residential	42.5	65	No	42.1	45	No
47	Residential	44.4	65	No	43.7	45	No
48	Residential	43.9	65	No	43.3	45	No
49	Residential	43.2	65	No	42.8	45	No
50	Residential	43.2	65	No	42.7	45	No
51	Residential	43.2	65	No	42.7	45	No
52	Residential	42.4	65	No	41.9	45	No
53	Residential	42.3	65	No	41.9	45	No
54	Residential	40.6	65	No	40.4	45	No
55	Residential	42.7	65	No	42.4	45	No
56	Residential	42.6	65	No	42.3	45	No
57	Residential	39.6	65	No	39.4	45	No
58	Residential	40.3	65	No	39.7	45	No
59	Residential	41.9	65	No	41.2	45	No
60	Residential	41.5	65	No	40.8	45	No
61	Residential	39.1	65	No	38.2	45	No
62	Residential	37.7	65	No	37.2	45	No
63	Residential	37.2	65	No	36.6	45	No
64	Residential	36.4	65	No	35.9	45	No
65	Residential	35.4	65	No	35.1	45	No
66	Residential	34.5	65	No	34.3	45	No
67	Residential	33.5	65	No	33.3	45	No
68	Residential	37.7	65	No	37.5	45	No
69	Residential	37.8	65	No	37.6	45	No
70	Residential	37.7	65	No	37.6	45	No
71	Residential	36.7	65	No	36.3	45	No
72	Residential	36.9	65	No	36.6	45	No
73	Residential	37.2	65	No	36.9	45	No
74	Residential	36.2	65	No	36.0	45	No

Table 12: Mitigated Operational Noise Levels

Receptor No.	Land Use	Daytime			Nighttime		
		Modeled Noise Level, dBA L_{eq}	City Noise Standard, dBA L_{eq}	Exceeds Standard?	Modeled Noise Level, dBA L_{eq}	City Noise Standard, dBA L_{eq}	Exceeds Standard?
75	Residential	35.2	65	No	35.1	45	No
76	Residential	34.1	65	No	34.0	45	No
77	Residential	32.9	65	No	32.8	45	No
78	Residential	32.5	65	No	32.4	45	No
79	Residential	31.1	65	No	31.1	45	No
80	Residential	30.4	65	No	30.3	45	No
81	Residential	29.7	65	No	29.6	45	No
82	Residential	29.0	65	No	28.9	45	No
83	Residential	28.5	65	No	28.4	45	No
84	Residential	28.3	65	No	28.2	45	No
85	Residential	29.5	65	No	29.4	45	No
86	Residential	28.9	65	No	28.8	45	No
87	Residential	28.5	65	No	28.4	45	No
88	Residential	28.2	65	No	28.1	45	No
89	Residential	28.2	65	No	28.1	45	No
90	Residential	31.2	65	No	31.0	45	No
91	Residential	31.1	65	No	30.9	45	No
92	Residential	28.2	65	No	27.9	45	No
93	Residential	28.0	65	No	27.7	45	No
94	Residential	27.7	65	No	27.5	45	No
95	Residential	27.5	65	No	27.3	45	No
96	Residential	27.2	65	No	27.0	45	No
97	Residential	27.0	65	No	26.9	45	No
98	Residential	27.0	65	No	26.8	45	No
99	Residential	27.1	65	No	27.0	45	No
100	Residential	27.3	65	No	27.2	45	No
101	Residential	27.5	65	No	27.4	45	No
102	Residential	27.9	65	No	27.8	45	No
103	Residential	27.7	65	No	27.7	45	No
104	Residential	28.0	65	No	27.9	45	No
105	Residential	28.3	65	No	28.2	45	No
106	Residential	28.5	65	No	28.4	45	No
107	Residential	29.1	65	No	29.1	45	No
108	Residential	30.0	65	No	29.9	45	No
109	Residential	30.9	65	No	30.9	45	No
110	Residential	29.6	65	No	29.6	45	No
111	Residential	28.5	65	No	28.5	45	No
112	Residential	29.1	65	No	29.1	45	No
113	Residential	29.6	65	No	29.6	45	No
114	Residential	30.3	65	No	30.3	45	No
115	Residential	31.1	65	No	31.1	45	No
116	Residential	45.4	65	No	44.4	45	No
117	Residential	46.5	65	No	44.9	45	No
118	Residential	47.8	65	No	44.9	45	No
119	Residential	43.7	65	No	42.5	45	No
120	Residential	42.5	65	No	41.9	45	No

Source: SoundPLAN Essential Version 5.1. Refer to Appendix B for receptor locations and noise modeling results.

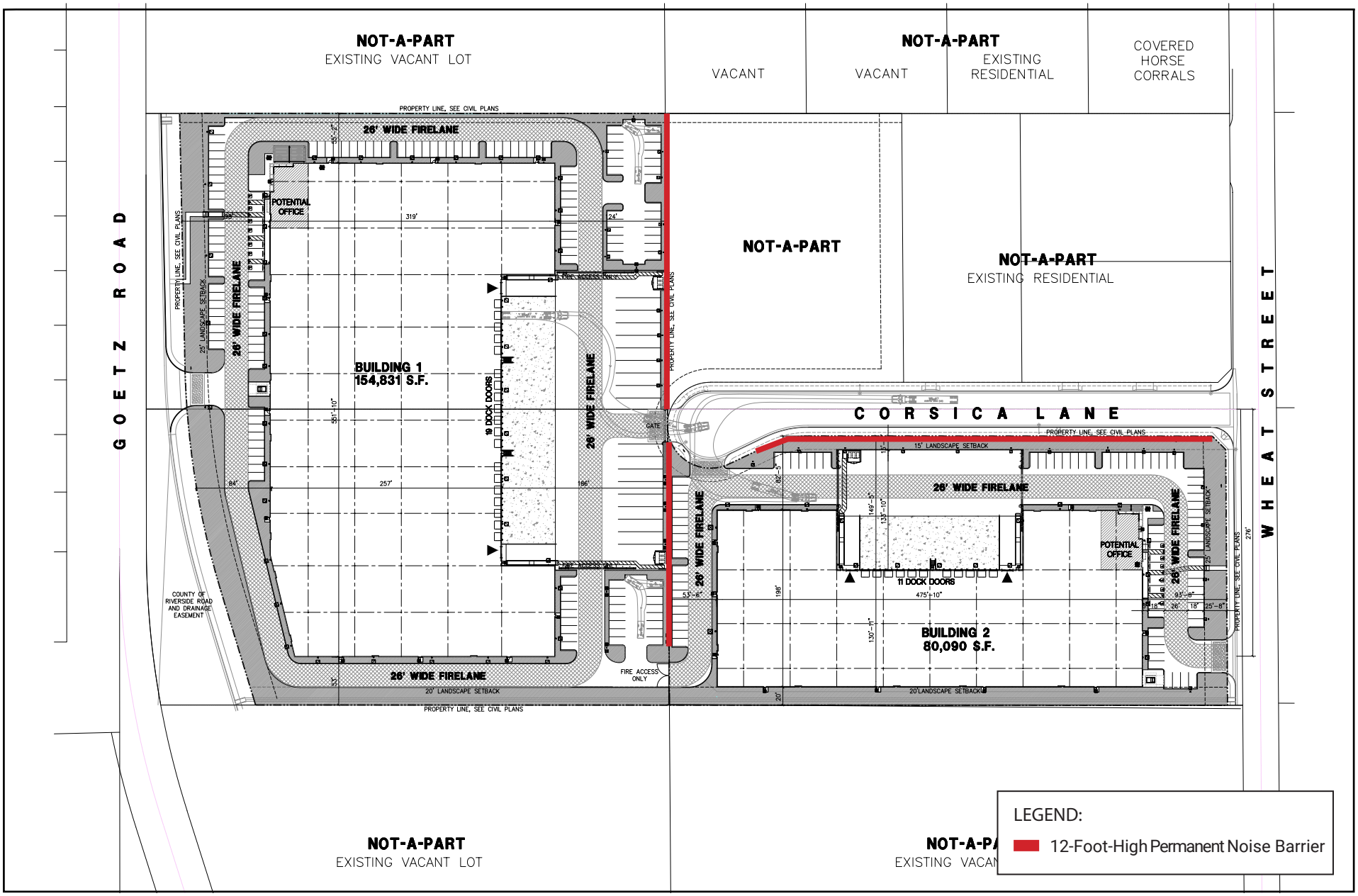


EXHIBIT 9: Site 1 Operational Noise Barrier Locations

Menifee Compass Northern Gateway Warehouses Project

City of Menifee

Not to Scale

Kimley»Horn

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Off-Site Traffic Noise

Implementation of the Project would generate increased traffic volumes along nearby roadway segments. Based on the Traffic Study, the proposed Project would result in approximately total 839 daily trips. The Opening Year "Opening Year Without Project" and "Opening Year With Project" scenarios are compared in Table 13: Opening Year Project Traffic Noise Levels. Table 13 shows that Opening Year Without Project traffic noise levels would range from 60.6 dBA CNEL to 73.7 dBA CNEL and between 61.2 dBA CNEL and 73.8 dBA CNEL under Opening Year With Project conditions.

Table 13: Opening Year Project Traffic Noise Levels

Roadway Segment		Opening Year Without Project		Opening Year With Project		Change	Normally Acceptable Standard (dBA CNEL)[2]	Significant Impact[3]
		ADT	dBA CNEL[1]	ADT	dBA CNEL[1]			
Goetz Road	Ethanac Road to McLaughlin Road	9,038	65.5	9,243	65.6	0.1	60	No
Ethnac Road	Goetz Road to Wheat Street	25,459	69.2	25,648	69.3	0.1	60	No
	Wheat Street to Murrieta Road	28,315	70.4	28,863	70.5	0.1	60	No
	Murrieta Road to Evans Road	33,485	71.8	34,256	71.9	0.1	60	No
	Evans Road to Case Road	36,277	72.8	37,276	72.9	0.1	70	No
	Case Road to I-215 SB Ramps	43,837	73.7	44,836	73.8	0.1	70	No
	I-215 SB Ramps to I-215 NB Ramps	34,464	71.0	34,993	71.1	0.1	70	No
Wheat Street	Ethanac Road to McLaughlin Road	2,846	60.6	3,221	61.2	0.6	60	No

ADT = average daily traffic; dBA = A-weighted decibels; CNEL = community noise equivalent level.

Notes:
1. Traffic noise levels are at 100 feet from the roadway centerline. The actual sound level at any receptor location is dependent upon such factors as the source-to-receptor distance and the presence of intervening structures, barriers, and topography.
2. The lowest Normally Acceptable land use compatibility noise standard for developed uses along each roadway segment is conservatively used to analyze impacts; see Table 4.
3. Potential impacts occur when the Project change exceeds 3 dBA and the Normally Acceptable land use compatibility standard is exceeded (i.e., both must occur).

Source: Based on traffic data within the Traffic Study, prepared by Kimley-Horn, September 2023. Refer to Appendix B for traffic noise modeling assumptions and results.

In general, a 3-dBA increase in traffic noise is barely perceptible to people, while a 5-dBA increase is readily noticeable. As shown in Table 13, the "With Project" noise levels would result in a maximum increase of 0.1 dBA CNEL along all roadway segments except Wheat Street segment which is 0.6 dBA. Although the traffic noise levels are above the Normally Acceptable noise standard along these roadways, the Project would result in an increase of 0.1 and 0.6 dBA CNEL which is well below the barely noticeable criterion of 3.0 dBA CNEL. Therefore, traffic noise impacts from the proposed Project would be less than significant.

Mitigation Measures:

MM NO-1 Prior to issuance of a Grading Permit, the applicant shall demonstrate, to the satisfaction of the City of Menifee Director of Public Works or Chief Engineer, that the construction contracts for Site 1 and Site 2 include temporary noise barriers. The temporary noise barriers shall have a sound transmission class (STC) of 25 or greater in accordance with the American Society for Testing and Materials (ASTM) Test Method E90, or at least two pounds per sf to ensure adequate transmission loss characteristics. To achieve this, the barrier may consist of steel tubular framing, welded joints, a layer of 18-ounce tarp, a two-inch thick fiberglass blanket, a half-inch thick weatherwood asphalt sheathing, and 7/16-inch sturdy board siding. The barrier must be free of degrading holes or gaps and shall be designed to prevent structural failure due to factors such as wind, shear, shallow

soil failure, earthquakes, and erosion. Temporary construction noise barriers shall be placed at the following locations where construction noise impacts to sensitive receptors have been identified:

- Site 1: Temporary noise barriers shall be installed along the northern and eastern Project boundaries as depicted in Exhibit 7.
- Site 2: An 8-foot-high temporary noise barrier shall be installed along the southern and western Project boundary of Site 2 as depicted in Exhibit 8.
- Site 3: Temporary noise barriers are not required.

MM NO-2 Prior to the issuance of Building Permits for Site 1, a 12-foot-high absorptive noise barrier along the eastern property line of Building 1 and northern property line of Building 2 as depicted in Exhibit 9. The noise barriers shall be constructed with acoustic absorptive material meeting a noise reduction coefficient of 0.70 or greater in accordance with American Society for Testing and Materials Test Method C423. To be effective, the barrier shall be constructed with a solid material with no gaps in the face of the wall or at the base. Openings or gaps between sound wall materials or the ground substantially reduce the effectiveness of the sound wall. All noise control barrier walls shall be designed to preclude structural failure due to such factors as winds, shear, shallow soil failure, earthquakes, and erosion. The City Building Official shall review and approve all proposed designs prior to the issuance of a building permit. Noise barriers are not required during operations for Site 2 and Site 3.

Level of Significance: Less than significant impact with mitigation incorporated.

Threshold 6.2 Would the Project result in generation of excessive ground-borne vibration or ground-borne noise levels?

Construction Vibration

Construction can generate varying degrees of ground vibration, depending on the construction procedures and equipment. Operation of construction equipment generates vibrations that spread through the ground and diminish with distance from the source. Construction on the Project site would have the potential to result in varying degrees of temporary ground-borne vibration, depending on the specific construction equipment used and the operations involved.

The FTA has published standard vibration velocities for construction equipment operations. In general, the FTA architectural damage criterion for continuous vibrations (i.e., 0.2 in/sec) appears to be conservative. The types of construction vibration impacts include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 30 feet. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment. For example, for a building that is constructed with reinforced concrete with no plaster, the FTA guidelines show that a vibration level of up to 0.20 in/sec is considered safe and would not result in any construction vibration damage.

Table 14: Typical Construction Equipment Vibration Levels lists vibration levels at 25 feet for typical construction equipment. Vibration levels at 40 feet, the distance from the Project boundary (Site 2) to the nearest existing structure is also included in Table 14. Ground-borne vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. As indicated in Table 14, based on FTA data, vibration velocities from typical heavy construction equipment operations that would be used during the Project construction range from 0.0015 to 0.0440 in/sec PPV at 40 feet from the source of activity.

Table 14: Typical Construction Equipment Vibration Levels

Equipment	Peak Particle Velocity at 25 Feet (in/sec)	Peak Particle Velocity at 40 Feet (in/sec)[1]
Large Bulldozer	0.089	0.0440
Caisson Drilling	0.089	0.0440
Loaded Trucks	0.076	0.0376
Jackhammer	0.035	0.0173
Small Bulldozer/Tractors	0.003	0.0015

Notes:
1. Calculated using the following formula: $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$, where: PPV_{equip} = the peak particle velocity in in/sec of the equipment adjusted for the distance; PPV_{ref} = the reference vibration level in in/sec from Table 7-4 of the Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018; D = the distance from the equipment to the receiver.

Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018.

As noted above, the nearest structure to the Project construction site is located approximately 40 feet away from Site 2. Table 14 shows that at 40 feet the vibration velocities from construction equipment would not exceed 0.0440 in/sec PPV, which is below the FTA's 0.20 in/sec PPV threshold for building damage and below the 0.4 in/sec PPV annoyance threshold. It is also acknowledged that construction activities would occur throughout the Project site and would not be concentrated at the point closest to the nearest structure. Therefore, vibration impacts associated with Project construction would be less than significant.

Operational Vibration

The Project would include truck movement activity at the Project site. These movements would generally be low-speed (i.e., less than 15 miles per hour) and would occur over new, smooth surfaces. For perspective, Caltrans has studied the effects of propagation of vehicle vibration on sensitive land uses and notes that "heavy trucks, and quite frequently buses, generate the highest earthborn vibrations of normal traffic." Caltrans further notes that the highest traffic-generated vibrations are along freeways and state routes. Their study finds that "vibrations measured on freeway shoulders (five meters from the centerline of the nearest lane) have never exceeded 0.08 inches per second, with the worst combinations of heavy trucks and poor roadway conditions (while such trucks were moving at freeway speeds). This level coincides with the maximum recommended safe level for ruins and ancient monuments (and historic buildings).[17] Since the Project's truck movements would be at low speed (not at freeway speeds) and would be over smooth surfaces (not under poor roadway conditions), Project-related vibration associated with truck activity would not result in excessive ground-borne vibrations; no vehicle-generated vibration impacts would occur. In addition, there are no sources of substantial ground-borne vibration associated

[17] California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol ("TeNS")*, September 2013.

with the Project, such as rail or subways. The Project would not create or cause any vibration impacts due to operations.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

Threshold 6.3 For a Project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?

The closest airport to the Project site is the Perris Valley Aviation Airport located approximately 1.16 miles to the north of Site 2. Although the Project is within 2.0 miles of the Perris Valley airport, it is outside of the 55 CNEL noise contour.[18] Additionally, there are no private airstrips located within the Project vicinity. Therefore, the Project would not expose people working in the Project area to excessive airport- or airstrip-related noise levels and no mitigation is required.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

6.2 Cumulative Noise Impacts

Cumulative Construction Noise

Project construction noise levels would not exceed the FTA's construction noise threshold of 80 dBA for residential uses with implementation of **MM NO-1**. Construction noise would be periodic and temporary noise impacts that would cease upon completion of construction activities. The Project would contribute to other proximate construction projects noise impacts if construction activities were conducted concurrently. However, based on the noise analysis above, the Project's construction-related noise impacts would be less than significant with mitigation incorporated.

Construction activities at other planned and approved projects near the Project site would be required to comply with applicable City rules related to noise and would take place during daytime hours on the days permitted by the MDC, and projects requiring discretionary City approvals would require the City to evaluate construction noise impacts, comply with the City's standard conditions of approval, and implement mitigation, if necessary, to minimize noise impacts. Construction noise impacts are by nature localized. Based on the fact that noise dissipates as it travels away from its source, noise impacts would be limited to the Project site and vicinity. Therefore, Project construction would not result in a cumulatively considerable contribution to significant cumulative impacts, assuming such a cumulative impact existed, and impacts in this regard are not cumulatively considerable.

[18] Riverside County Airport Land Use Commission, *Perris Valley Airport Ultimate Noise Impacts*, July 2010.

Cumulative Operational Noise

Cumulative Off-Site Traffic Noise

Cumulative noise impacts describe how much noise levels are projected to increase over existing conditions with the development of the proposed Project and other foreseeable projects. Cumulative noise impacts would occur primarily as a result of increased traffic on local roadways due to buildout of the proposed Project and other projects in the vicinity. Cumulative increases in traffic noise levels were estimated by comparing the Existing and Opening Year Without Project scenarios to the Opening Year Plus Project scenario. The traffic analysis considers cumulative traffic from future growth assumed in the transportation model, as well as cumulative projects.

A project's contribution to a cumulative traffic noise increase would be considered significant when the combined effect exceeds perception level (i.e., auditory level increase) threshold. The following criteria is used to evaluate the combined and incremental effects of the cumulative noise increase.

- *Combined Effect*. The cumulative impact with Project noise level ("Opening Year With Project") would cause a significant cumulative impact if a 3.0 dB increase over "Existing" conditions occurs and the resulting noise level exceeds the applicable exterior standard at a sensitive use. Although there may be a significant noise increase due to the proposed Project in combination with other related projects (combined effects), it must also be demonstrated that the Project has an incremental effect. In other words, a significant portion of the noise increase must be due to the proposed Project.

- *Incremental Effects*. The "Opening Year With Project" causes a 1.0 dBA increase in noise over the "Opening Year Without Project" noise level.

A significant impact would result only if both the combined and incremental effects criteria have been exceeded, and the resultant noise level exceeds the Normally Acceptable land use compatibility noise standard. Noise, by definition, is a localized phenomenon and reduces as distance from the source increases. Consequently, only the proposed Project and growth due to occur in the general area would contribute to cumulative noise impacts.

Table 15: Cumulative Off-Site Traffic Noise Levels identifies the traffic noise effects along roadway segments in the Project vicinity for "Existing," "Opening Year Without Project," and "Opening Year With Project," conditions, including incremental and net cumulative impacts. Table 15 shows the combined and incremental effect criterion would not be exceeded along any of the Project roadway segments. As discussed above, a cumulative traffic noise impact would occur if both the combined and incremental effects criteria are exceeded, and the resultant noise level exceeds the Normally Acceptable land use compatibility standard. Therefore, cumulative traffic impacts from the proposed Project would be less than significant.

Cumulative Stationary Noise

The stationary noise sources of the proposed Project would not result in an incremental increase in non-transportation noise sources in the Project vicinity. Furthermore, as discussed above, operational noise caused by the proposed Project would be less than significant. Similar to the proposed Project, other planned and approved projects would be required to mitigate for stationary noise impacts at nearby

sensitive receptors, if necessary. As stationary noise sources are generally localized, there is a limited potential for other projects to contribute to cumulative noise impacts.

No known past, present, or reasonably foreseeable projects would combine with the operational noise levels generated by the Project to increase noise levels above acceptable standards because each project must comply with applicable City regulations that limit operational noise. Therefore, the Project, together with other projects, would not create a significant cumulative impact, and even if there was such a significant cumulative impact, the Project would not make a cumulatively considerable contribution to significant cumulative operational noises.

Given that noise dissipates as it travels away from its source, operational noise impacts from on-site activities and other stationary sources would be limited to the Project site and vicinity. Thus, cumulative operational noise impacts from related projects, in conjunction with Project specific noise impacts, would not be cumulatively significant.

Table 15: Cumulative Off-Site Traffic Noise Levels

Roadway Segment		Existing[1]	Opening Year Without Project[1]	Opening Year With Project[1]	Combined Effects	Incremental Effects	Normally Acceptable Standard (dBA CNEL)[2]	Cumulatively Significant Impact?[3]
					Difference In dBA Between Existing and Opening Year With Project	Difference In dBA Between Opening Year Without Project and Opening Year With Project		
Goetz Road	Ethanac Road to McLaughlin Road	65.5	65.5	65.6	0.1	0.1	60	No
Ethanac Road	Goetz Road to Wheat Street	68.0	69.2	69.3	1.3	0.1	60	No
	Wheat Street to Murrieta Road	68.5	70.4	70.5	2.1	0.1	60	No
	Murrieta Road to Evans Road	69.8	71.8	71.9	2.1	0.1	60	No
	Evans Road to Case Road	70.4	72.8	72.9	2.5	0.1	70	No
	Case Road to I-215 SB Ramps	72.3	73.7	73.8	1.5	0.1	70	No
	I-215 SB Ramps to I-215 NB Ramps	69.5	71.0	71.1	1.6	0.1	70	No
Wheat Street	Ethanac Road to McLaughlin Road	48.1	60.6	61.2	13.1	0.6	60	No

ADT = average daily trips; dBA = A-weighted decibels; CNEL = Community Noise Equivalent Level

Notes:
1. Traffic noise levels are at 100 feet from the roadway centerline. The actual sound level at any receptor location is dependent upon such factors as the source-to-receptor distance and the presence of intervening structures, barriers, and topography.
2. The lowest Normally Acceptable land use compatibility noise standard for developed uses along each roadway segment is conservatively used to analyze impacts; see Table 4.
3. A significant impact would result only if both the combined and incremental effects criteria have been exceeded, and the resultant noise level exceeds the Normally Acceptable land use compatibility standard.

Source: Based on traffic data within the Traffic Study, prepared by Kimley-Horn, September 2023. Refer to Appendix B for traffic noise modeling assumptions and results.

7 REFERENCES

1. California Department of Transportation, *California Vehicle Noise Emission Levels*, 1987.
2. California Department of Transportation, *Traffic Noise Analysis Protocol*, 2020.
3. California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, 2013.
4. California Department of Transportation, *Transportation and Construction Vibration Guidance Manual*, 2020.
5. City of Menifee, *City of Menifee General Plan*, 2013.
6. City of Menifee, *City of Menifee General Plan Noise Background Document and Definitions*, Table N-b3.
7. City of Menifee, *City of Menifee Development Code*, 2021.
8. City of Menifee, *City of Menifee Municipal Code*, current through Ordinance 2023-381, passed 8-2-2023.
9. Cyril M. Harris, *Handbook of Noise Control*, 1979.
10. Elliott H. Berger, Rick Neitzel, and Cynthia A. Kladden, *Noise Navigator Sound Level Database with Over 1700 Measurement Values*, June 26, 2015.
11. Federal Highway Administration, *Federal Highway Traffic Noise Prediction Model, FHWA-RD77-108*, 1978.
12. Federal Highway Administration, *Highway Traffic and Construction Noise - Problem and Response*, April 2006.
13. Federal Highway Administration, *Noise Fundamentals,* 2017
14. Federal Highway Administration, *Noise Measurement Handbook – Final Report*, 2018.
15. Federal Highway Administration, *Roadway Construction Noise Model*, 2006.
16. Federal Highway Administration, *Roadway Construction Noise Model User's Guide Final Report*, 2006.
17. Federal Interagency Committee on Noise, *Federal Agency Review of Selected Airport Noise Analysis Issues*, 1992.
18. Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018.
19. James P. Cowan, *Handbook of Environmental Acoustics,* 1994.
20. Kariel, H. G., *Noise in Rural Recreational Environments*, Canadian Acoustics 19(5), 3-10, 1991.
21. Kimley-Horn and Associates, Inc., *Traffic Study for the Compass Northern Gateway Project*, September 2023.
22. Riverside County Airport Land Use Commission, *Perris Valley Airport Ultimate Noise Impacts*, July 2010.
23. U.S. Department of Labor, Occupational Safety and Health Standards, *29 CFR 1910* (Occupational Noise Exposure).
24. United States Environmental Protection Agency, *Noise from Construction Equipment and Operations, Building Equipment and Home Appliances*, NTID300.1, December 31, 1971.
25. United States Environmental Protection Agency, *Protective Noise Levels (EPA 550/9-79-100)*, 1979.

Appendix A

Existing Ambient Noise Measurements

Noise Measurement Field Data

Project:	Menifee Compass Norther Gateway Warehouses	**Job Number:**	094991020
Site No.:	ST-1	**Date:**	10/4/2023
Analyst:	Sean Gorden and Eric Wang	**Time:**	10:07 am - 10:17 am
Location:	Southwest corner of Corsica Lane and Wheat Street		
Noise Sources:	Birds chirping, tranmission line whirring, airpline flying over		
Comments:			

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
50.2	38.1	67.5	82.5

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	74°
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	29.93"
Humidity:	38%

Photo:

Kimley»Horn

Measurement Report

Report Summary

Meter's File Name	ST-1.024.s	Computer's File Name	LxTse_0007061-20231004 100755-ST-1.024.ldbin
Meter	LxT SE 0007061	Firmware	2.404
User		Location	
Job Description			
Note			

Start Time	2023-10-04 10:07:55	Duration	0:10:00.0		
End Time	2023-10-04 10:17:55	Run Time	0:10:00.0	Pause Time	0:00:00.0
Pre-Calibration	2023-10-04 09:46:14	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA_{eq}	50.2 dB		
LAE	78.0 dB	SEA	--- dB
EA	7.0 µPa²h		
LA_{peak}	82.5 dB	2023-10-04 10:13:56	
LAS_{max}	67.5 dB	2023-10-04 10:13:56	
LAS_{min}	38.1 dB	2023-10-04 10:16:20	
LA_{eq}	50.2 dB		
LC_{eq}	59.4 dB	LC_{eq} - LA_{eq}	9.2 dB
LAI_{eq}	52.3 dB	LAI_{eq} - LA_{eq}	2.1 dB

Exceedances	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LApeak > 135.0 dB	0	0:00:00.0
LApeak > 137.0 dB	0	0:00:00.0
LApeak > 140.0 dB	0	0:00:00.0

Community Noise	LDN	LDay	LNight
	50.2 dB	50.2 dB	0.0 dB

	LDEN	LDay	LEve	LNight
	50.2 dB	50.2 dB	--- dB	--- dB

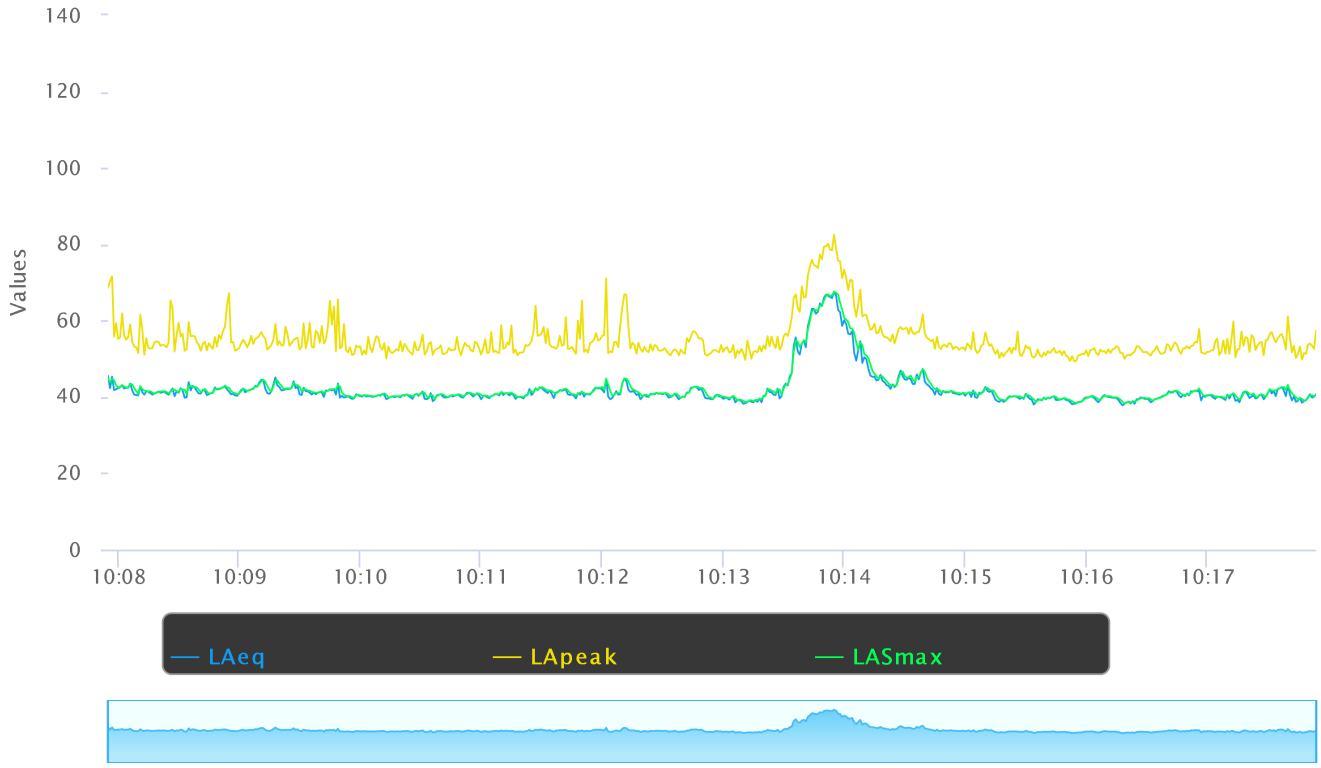
Any Data	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	50.2 dB		59.4 dB		--- dB	
$Ls_{(max)}$	67.5 dB	2023-10-04 10:13:56	--- dB	None	--- dB	None
$LS_{(min)}$	38.1 dB	2023-10-04 10:16:20	--- dB	None	--- dB	None
$L_{Peak(max)}$	82.5 dB	2023-10-04 10:13:56	--- dB	None	--- dB	None

Overloads	Count	Duration	OBA Count	OBA Duration
	0	0:00:00.0	0	0:00:00.0

Statistics

LAS 5.0	52.8 dB
LAS 10.0	44.4 dB
LAS 33.3	41.4 dB
LAS 50.0	40.8 dB
LAS 66.6	40.2 dB
LAS 90.0	39.4 dB

Time History



Noise Measurement Field Data

Project:	Menifiee Compass Northern Gateway Warehouse	**Job Number:**	094991020
Site No.:	ST-2	**Date:**	10/4/2023
Analyst:	Sean G. and Eric W.	**Time:**	10:56 am-11:06 am
Location:	Corner of Headlands Way and Tower Lane, west of Project Site 1		
Noise Sources:	Birds rustling in trees, aircraft flying overhead.		
Comments:			

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
52.1	38.3	69.8	80.7

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	79°
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	29.92"
Humidity:	31%

Photo:

Kimley»Horn

Measurement Report

Report Summary

Meter's File Name	ST-1.027.s	Computer's File Name	LxTse_0007061-20231004 105559-ST-1.027.ldbin
Meter	LxT SE 0007061	Firmware	2.404
User		Location	
Job Description			
Note			

Start Time	2023-10-04 10:55:59	Duration	0:10:00.0		
End Time	2023-10-04 11:05:59	Run Time	0:10:00.0	Pause Time	0:00:00.0
Pre-Calibration	2023-10-04 09:46:14	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA_{eq}	52.1 dB		
LAE	79.9 dB	SEA	--- dB
EA	10.8 µPa²h		
LA_{peak}	80.7 dB	2023-10-04 11:05:49	
LAS_{max}	69.8 dB	2023-10-04 11:05:49	
LAS_{min}	38.3 dB	2023-10-04 10:57:35	
LA_{eq}	52.1 dB		
LC_{eq}	65.6 dB	LC_{eq} - LA_{eq}	13.5 dB
LAI_{eq}	53.3 dB	LAI_{eq} - LA_{eq}	1.2 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LApk > 135.0 dB	0	0:00:00.0
LApk > 137.0 dB	0	0:00:00.0
LApk > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight
52.1 dB	52.1 dB	0.0 dB

LDEN	LDay	LEve	LNight
52.1 dB	52.1 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	52.1 dB		65.6 dB		--- dB	
$LS_{(max)}$	69.8 dB	2023-10-04 11:05:49	--- dB	None	--- dB	None
$LS_{(min)}$	38.3 dB	2023-10-04 10:57:35	--- dB	None	--- dB	None
$L_{Peak(max)}$	80.7 dB	2023-10-04 11:05:49	--- dB	None	--- dB	None

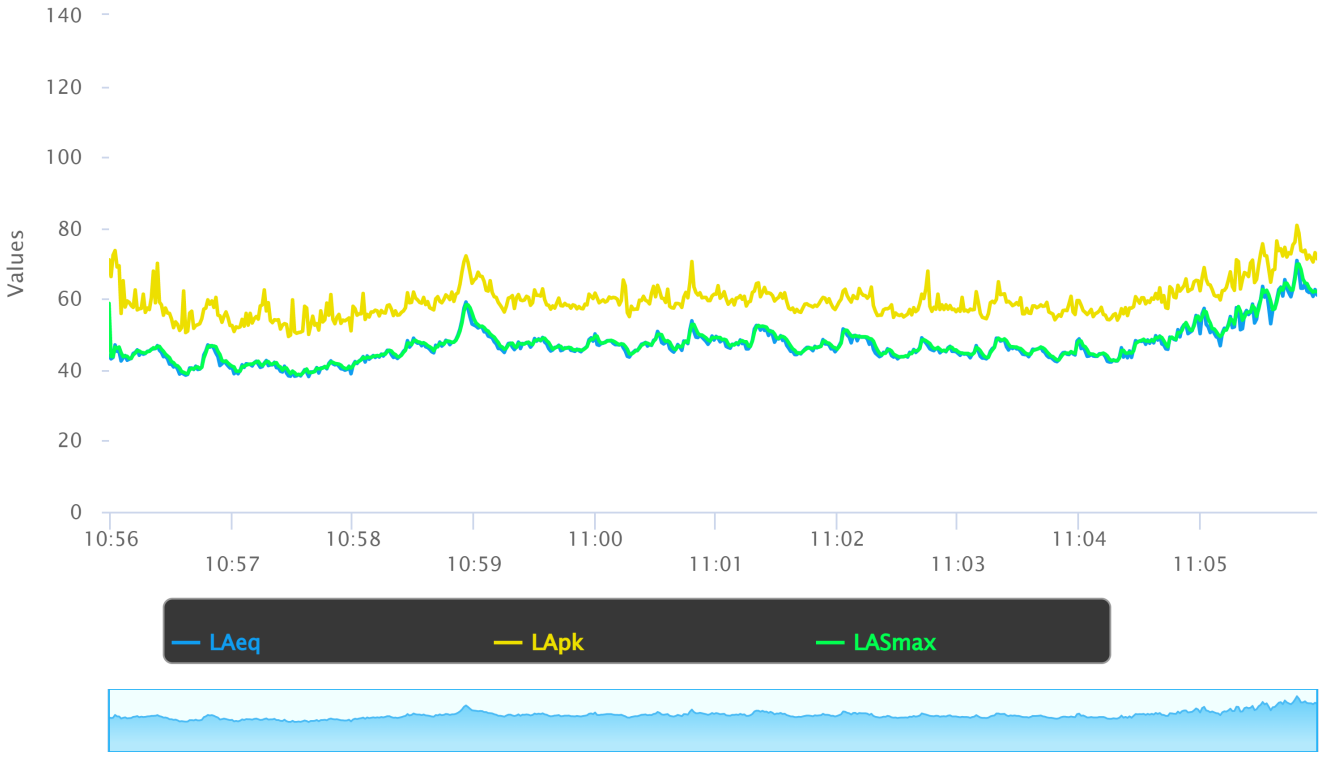
Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	0	0:00:00.0

Statistics

LAS 5.0	57.1 dB
LAS 10.0	52.4 dB
LAS 33.3	47.6 dB
LAS 50.0	46.2 dB
LAS 66.6	44.8 dB
LAS 90.0	41.3 dB

Time History



Noise Measurement Field Data

Project:	Menifee Compass Northern Gateway Warehouse	**Job Number:**	094991020
Site No.:	ST-3	**Date:**	10/4/2023
Analyst:	Sean G. and Eric W.	**Time:**	10:40 am-10:50 am
Location:	End of Ruffian Road, northwest of Project Site 2		
Noise Sources:	Birds chirping, dogs barking.		
Comments:			

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
54.3	40.4	71.9	91.3

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	78°
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	29.93"
Humidity:	33%

Photo:

Kimley»Horn

Measurement Report

Report Summary

Meter's File Name	ST-1.026.s	Computer's File Name	LxTse_0007061-20231004 104015-ST-1.026.ldbin
Meter	LxT SE 0007061	Firmware	2.404
User		Location	
Job Description			
Note			

Start Time	2023-10-04 10:40:15	Duration	0:10:00.0		
End Time	2023-10-04 10:50:15	Run Time	0:10:00.0	Pause Time	0:00:00.0
Pre-Calibration	2023-10-04 09:46:14	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA_{eq}	54.3 dB		
LAE	82.1 dB	SEA	--- dB
EA	17.9 µPa²h		
LA_{peak}	91.3 dB	2023-10-04 10:47:07	
LAS_{max}	71.9 dB	2023-10-04 10:47:08	
LAS_{min}	40.4 dB	2023-10-04 10:48:30	
LA_{eq}	54.3 dB		
LC_{eq}	61.3 dB	LC_{eq} - LA_{eq}	7.0 dB
LA_{Leq}	63.1 dB	LA_{Leq} - LA_{eq}	8.8 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LApk > 135.0 dB	0	0:00:00.0
LApk > 137.0 dB	0	0:00:00.0
LApk > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight
54.3 dB	54.3 dB	0.0 dB

LDEN	LDay	LEve	LNight
54.3 dB	54.3 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	54.3 dB		61.3 dB		--- dB	
$LS_{(max)}$	71.9 dB	2023-10-04 10:47:08	--- dB	None	--- dB	None
$LS_{(min)}$	40.4 dB	2023-10-04 10:48:30	--- dB	None	--- dB	None
$L_{Peak(max)}$	91.3 dB	2023-10-04 10:47:07	--- dB	None	--- dB	None

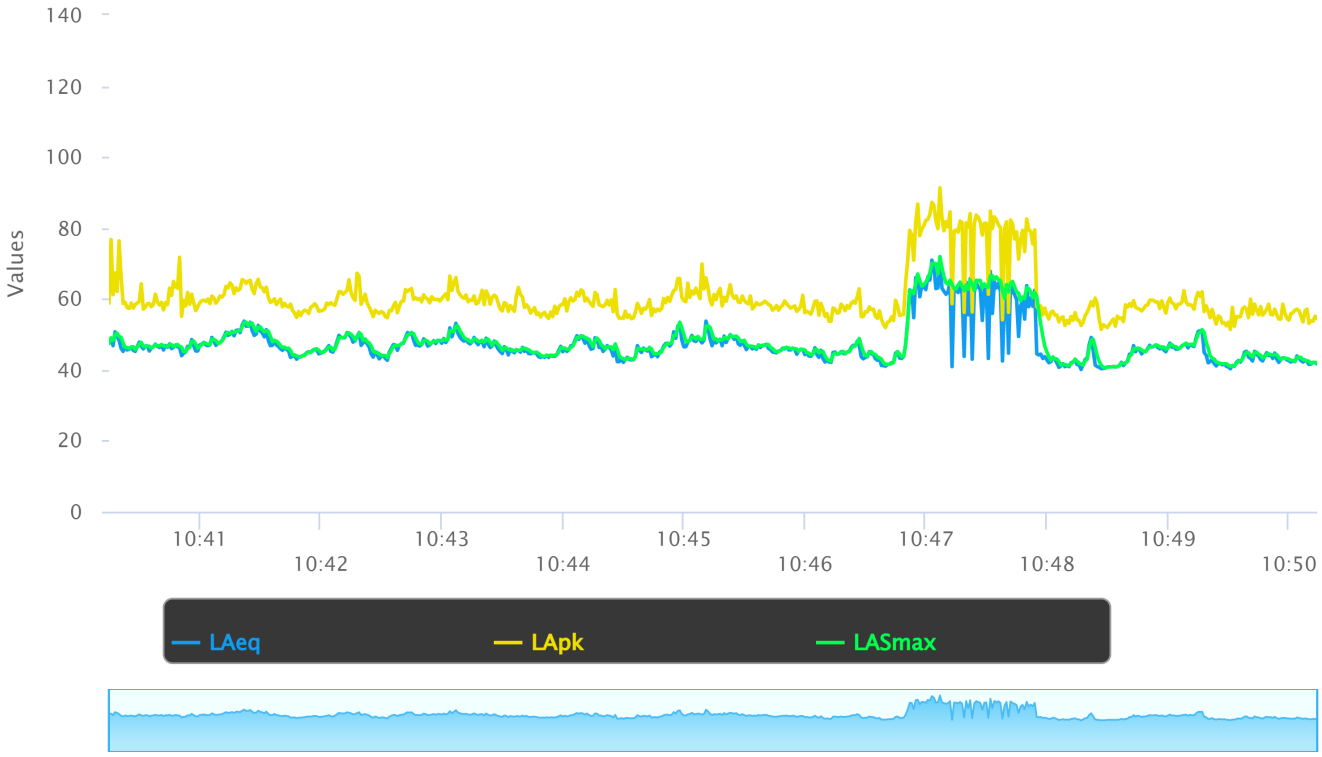
Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	0	0:00:00.0

Statistics

LAS 5.0	62.3 dB
LAS 10.0	57.5 dB
LAS 33.3	47.5 dB
LAS 50.0	46.3 dB
LAS 66.6	45.1 dB
LAS 90.0	42.5 dB

Time History



Noise Measurement Field Data

Project:	Menifee Compass Northern Gateway Warehouse	**Job Number:**	094991020
Site No.:	ST-4	**Date:**	10/4/2023
Analyst:	Sean G. and Eric W.	**Time:**	10:23 am-10:33 am
Location:	East of Wheat Street, close to southeast corner of Project Site 2		
Noise Sources:	Airplane overhead, birds chirping.		
Comments:			

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
48.7	37.7	67.0	78.7

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	76°
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	29.93"
Humidity:	35%

Photo:

Kimley»Horn

Measurement Report

Report Summary

Meter's File Name	ST-1.025.s	Computer's File Name	LxTse_0007061-20231004 102301-ST-1.025.ldbin
Meter	LxT SE 0007061	Firmware	2.404
User		Location	
Job Description			
Note			

Start Time	2023-10-04 10:23:01	Duration	0:10:00.0		
End Time	2023-10-04 10:33:01	Run Time	0:10:00.0	Pause Time	0:00:00.0
Pre-Calibration	2023-10-04 09:46:14	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA_{eq}	48.7 dB		
LAE	76.5 dB	SEA	--- dB
EA	4.9 µPa²h		
LA_{peak}	78.7 dB	2023-10-04 10:23:34	
LAS_{max}	67.0 dB	2023-10-04 10:23:34	
LAS_{min}	37.7 dB	2023-10-04 10:30:52	
LA_{eq}	48.7 dB		
LC_{eq}	60.8 dB	LC_{eq} - LA_{eq}	12.1 dB
LAI_{eq}	50.4 dB	LAI_{eq} - LA_{eq}	1.7 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LApk > 135.0 dB	0	0:00:00.0
LApk > 137.0 dB	0	0:00:00.0
LApk > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight
48.7 dB	48.7 dB	0.0 dB

LDEN	LDay	LEve	LNight
48.7 dB	48.7 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	48.7 dB		60.8 dB		--- dB	
$LS_{(max)}$	67.0 dB	2023-10-04 10:23:34	--- dB	None	--- dB	None
$LS_{(min)}$	37.7 dB	2023-10-04 10:30:52	--- dB	None	--- dB	None
$L_{Peak(max)}$	78.7 dB	2023-10-04 10:23:34	--- dB	None	--- dB	None

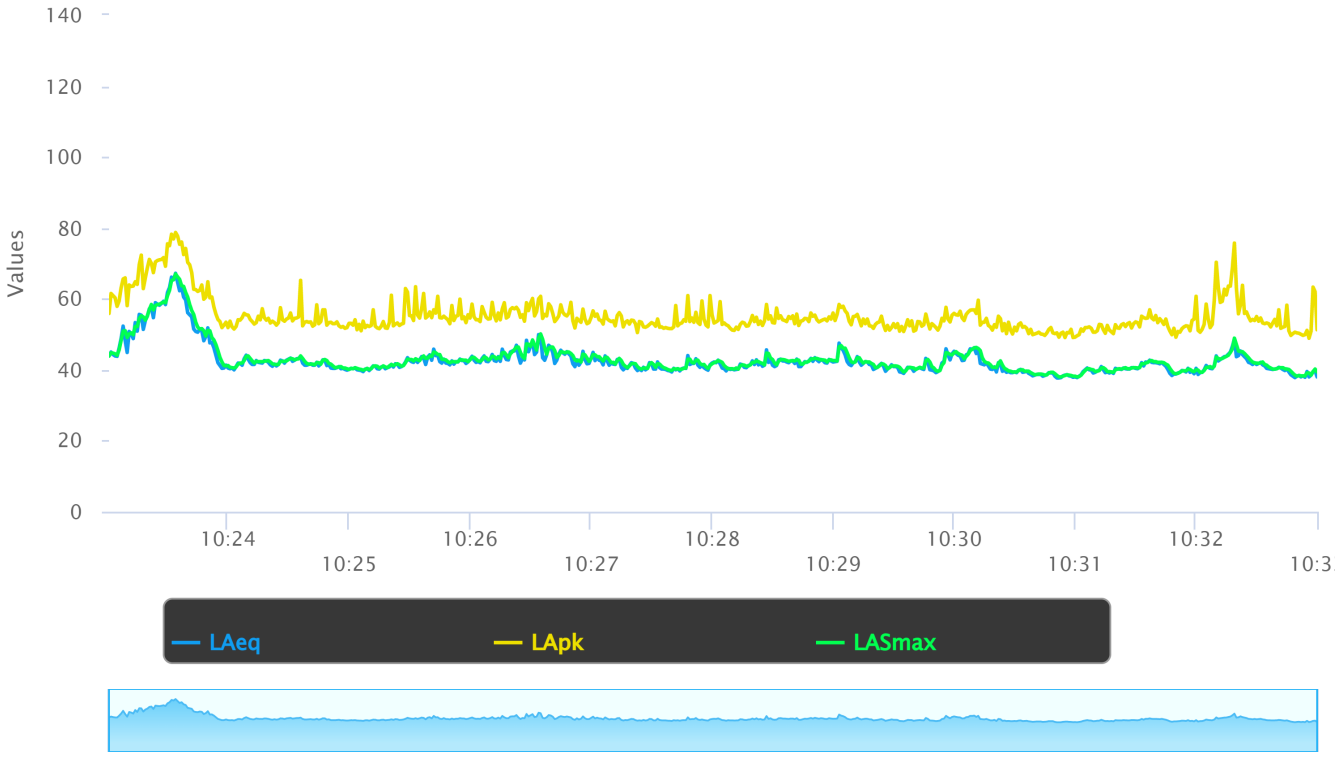
Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	0	0:00:00.0

Statistics

LAS 5.0	51.9 dB
LAS 10.0	46.0 dB
LAS 33.3	42.5 dB
LAS 50.0	41.8 dB
LAS 66.6	40.7 dB
LAS 90.0	39.4 dB

Time History



Noise Measurement Field Data

Project:	Menifee Compass Northern Gateway Warehouses	**Job Number:**	094991020
Site No.:	ST-5	**Date:**	10/4/2023
Analyst:	Sean Gorden and Eric Wang	**Time:**	9:48 am-9:58 am
Location:	East side of Hull Street, approximately 300 feet south of Ethanac Road		
Noise Sources:	Birds chirping, cars driving by.		
Comments:			

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
51.1	43.3	61.7	78.7

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	71°
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	29.94"
Humidity:	44%

Photo:

Kimley»Horn

Measurement Report

Report Summary

Meter's File Name	ST-1.023.s	Computer's File Name	LxTse_0007061-20231004 094743-ST-1.023.ldbin
Meter	LxT SE 0007061	Firmware	2.404
User		Location	
Job Description			
Note			

Start Time	2023-10-04 09:47:43	Duration	0:10:00.0		
End Time	2023-10-04 09:57:43	Run Time	0:10:00.0	Pause Time	0:00:00.0
Pre-Calibration	2023-10-04 09:46:17	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA_{eq}	51.1 dB		
LAE	78.9 dB	SEA	--- dB
EA	8.6 µPa²h		
LA_{peak}	78.7 dB	2023-10-04 09:47:49	
LAS_{max}	61.7 dB	2023-10-04 09:53:52	
LAS_{min}	43.3 dB	2023-10-04 09:55:25	
LA_{eq}	51.1 dB		
LC_{eq}	64.5 dB	LC_{eq} - LA_{eq}	13.4 dB
LAI_{eq}	53.2 dB	LAI_{eq} - LA_{eq}	2.1 dB

Exceedances	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LApeak > 135.0 dB	0	0:00:00.0
LApeak > 137.0 dB	0	0:00:00.0
LApeak > 140.0 dB	0	0:00:00.0

Community Noise	LDN	LDay	LNight
	51.1 dB	51.1 dB	0.0 dB

	LDEN	LDay	LEve	LNight
	51.1 dB	51.1 dB	--- dB	--- dB

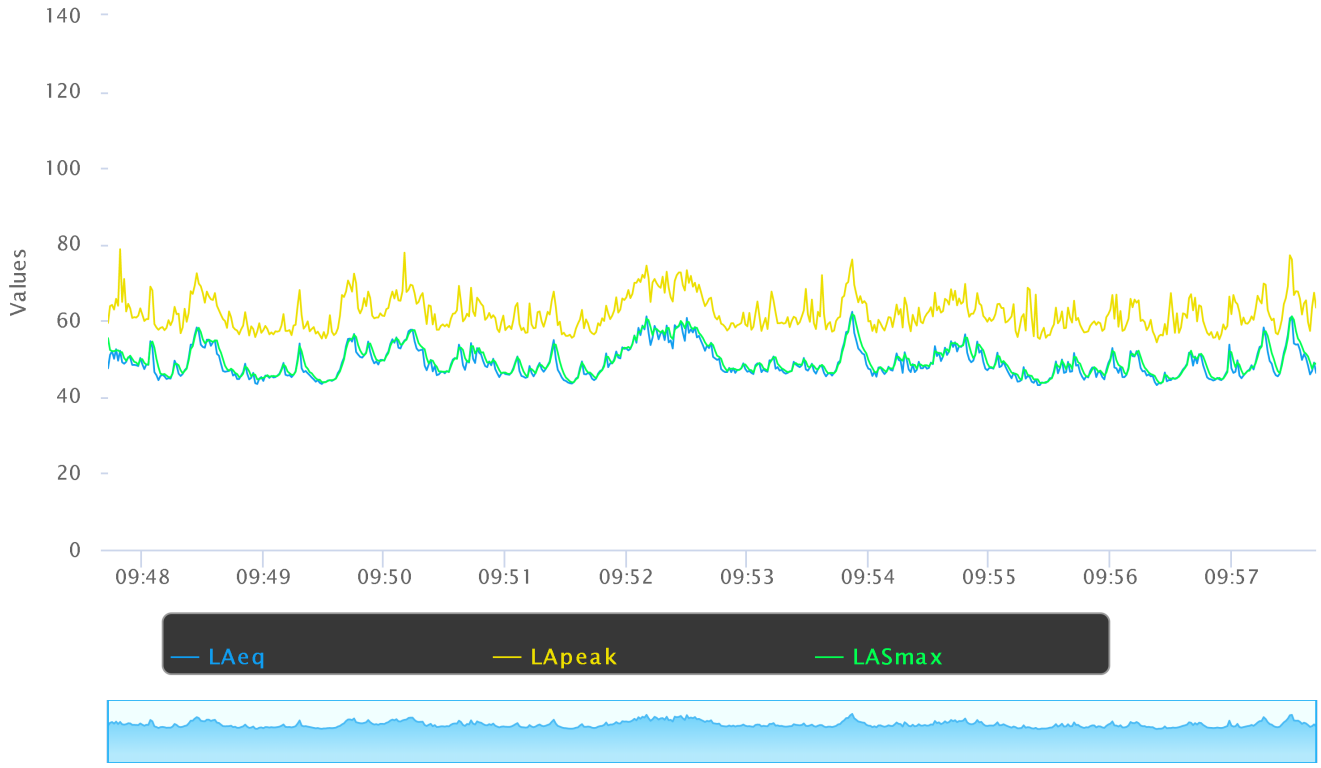
Any Data	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	51.1 dB		64.5 dB		--- dB	
$Ls_{(max)}$	61.7 dB	2023-10-04 09:53:52	--- dB	None	--- dB	None
$LS_{(min)}$	43.3 dB	2023-10-04 09:55:25	--- dB	None	--- dB	None
$L_{Peak(max)}$	78.7 dB	2023-10-04 09:47:49	--- dB	None	--- dB	None

Overloads	Count	Duration	OBA Count	OBA Duration
	0	0:00:00.0	0	0:00:00.0

Statistics

LAS 5.0	56.9 dB
LAS 10.0	54.7 dB
LAS 33.3	50.0 dB
LAS 50.0	48.2 dB
LAS 66.6	46.9 dB
LAS 90.0	45.0 dB

Time History



Appendix B

Noise Modeling Data

Project: Menifee Compass (Site 1)

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	Daytime hours (7 am to 7 pm)	8
	Evening hours (7 pm to 10 pm)	0
	Nighttime hours (10 pm to 7 am)	0
Leq to L10 factor		3

	Receptor (Land Use)	Distance (feet)	Shielding	Direction
1	Reference Level for SoundPLAN	50	0	East

RECEPTOR 1

Construction Phase	Equipment Type	No. of Equip.	Acoustical Usage Factor	Reference Noise Level at 50ft per Unit, Lmax	Noise Level at Receptor 1, Lmax	Noise Level at Receptor 1, Leq
Demolition						
	Dozer	2	40%	82	84.7	80.7
	Excavator	3	40%	81	85.5	81.5
	Concrete Saw	1	20%	90	89.6	82.6
Combined LEQ						**86.5**
Site Preparation						
	Dozer	3	40%	82	86.5	82.5
	Tractor	4	40%	84	90.0	86.0
Combined LEQ						**87.6**
Grading						
	Grader	1	40%	85	85.0	81.0
	Excavator	2	40%	81	83.7	79.7
	Tractor	2	40%	84	87.0	83.0
	Scraper	2	40%	84	86.6	82.6
	Dozer	1	40%	82	81.7	77.7
Combined LEQ						**88.2**
Building Construction						
	All Other Equipment > 5 HP	3	50%	85	89.8	86.8
	Generator	1	50%	81	80.6	77.6
	Crane	1	16%	81	80.6	72.6
	Welder/Torch	1	40%	74	74.0	70.0
	Tractor	3	40%	84	88.8	84.8
Combined LEQ						**89.4**
Paving						
	Paver	2	50%	77	80.2	77.2
	Pavement Scarafier	2	20%	90	92.5	85.5
	Roller	2	20%	80	83.0	76.0
Combined LEQ						**86.5**
Architectural Coating						
	Compressor (air)	1	40%	78	77.7	73.7
Combined LEQ						**73.7**
Maximum Noise Level						**91.2**

Source for Ref. Noise Levels: RCNM, 2005

Project: Menifee Compass (Site 2)

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	Daytime hours (7 am to 7 pm)	8
	Evening hours (7 pm to 10 pm)	0
	Nighttime hours (10 pm to 7 am)	0
Leq to L10 factor		3

	Receptor (Land Use)	Distance (feet)	Shielding	Direction
1	Reference Level for SoundPLAN	50	0	West

Construction Phase	Equipment Type	No. of Equip.	Acoustical Usage Factor	Reference Noise Level at 50ft per Unit, Lmax	RECEPTOR 1 Noise Level at Receptor 1, Lmax	RECEPTOR 1 Noise Level at Receptor 1, Leq
Demolition						
	Dozer	0	40%	82	0.0	0.0
	Excavator	0	40%	81	0.0	0.0
	Concrete Saw	0	20%	90	0.0	0.0
Combined LEQ						**10.8**
Site Preparation						
	Dozer	3	40%	82	86.5	82.5
	Tractor	4	40%	84	90.0	86.0
Combined LEQ						**87.6**
Grading						
	Grader	1	40%	85	85.0	81.0
	Excavator	1	40%	81	80.7	76.7
	Tractor	3	40%	84	88.8	84.8
	Scraper	0	40%	84	0.0	0.0
	Dozer	1	40%	82	81.7	77.7
Combined LEQ						**87.3**
Building Construction						
	All Other Equipment > 5 HP	3	50%	85	89.8	86.8
	Generator	1	50%	81	80.6	77.6
	Crane	1	16%	81	80.6	72.6
	Welder/Torch	1	40%	74	74.0	70.0
	Tractor	3	40%	84	88.8	84.8
Combined LEQ						**89.4**
Paving						
	Tractor	1	40%	84	84.0	80.0
	All Other Equipment > 5 HP	2	50%	85	88.0	85.0
	Paver	1	50%	77	77.2	74.2
	Pavement Scarafier	2	20%	90	92.5	85.5
	Roller	2	20%	80	83.0	76.0
Combined LEQ						**89.2**
Architectural Coating						
	Compressor (air)	1	40%	78	77.7	73.7
Combined LEQ						**73.7**
Maximum Noise Level						**92.3**

Source for Ref. Noise Levels: RCNM, 2005

Project: Menifee Compass (Site 3)

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	Daytime hours (7 am to 7 pm)	8
	Evening hours (7 pm to 10 pm)	0
	Nighttime hours (10 pm to 7 am)	0
Leq to L10 factor		3

	Receptor (Land Use)	Distance (feet)	Shielding	Direction
1	Reference Level for SoundPLAN	50	0	West

RECEPTOR 1

Construction Phase	Equipment Type	No. of Equip.	Acoustical Usage Factor	Reference Noise Level at 50ft per Unit, Lmax	Noise Level at Receptor 1, Lmax	Noise Level at Receptor 1, Leq
Demolition						
	Dozer	0	40%	82	0.0	0.0
	Excavator	0	40%	81	0.0	0.0
	Concrete Saw	0	20%	90	0.0	0.0
Combined LEQ						**10.8**
Site Preparation						
	Dozer	3	40%	82	86.5	82.5
	Tractor	4	40%	84	90.0	86.0
Combined LEQ						**87.6**
Grading						
	Grader	1	40%	85	85.0	81.0
	Excavator	1	40%	81	80.7	76.7
	Tractor	3	40%	84	88.8	84.8
	Scraper	0	40%	84	0.0	0.0
	Dozer	1	40%	82	81.7	77.7
Combined LEQ						**87.3**
Building Construction						
	All Other Equipment > 5 HP	3	50%	85	89.8	86.8
	Generator	1	50%	81	80.6	77.6
	Crane	1	16%	81	80.6	72.6
	Welder/Torch	1	40%	74	74.0	70.0
	Tractor	3	40%	84	88.8	84.8
Combined LEQ						**89.4**
Paving						
	Tractor	0	40%	84	0.0	0.0
	All Other Equipment > 5 HP	0	50%	85	0.0	0.0
	Paver	2	50%	77	80.2	77.2
	Pavement Scarafier	2	20%	90	92.5	85.5
	Roller	2	20%	80	83.0	76.0
Combined LEQ						**86.5**
Architectural Coating						
	Compressor (air)	1	40%	78	77.7	73.7
Combined LEQ						**73.7**
Maximum Noise Level						**91.2**

Source for Ref. Noise Levels: RCNM, 2005

FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels

Project Name: Menifee Compass Northern Gateway
Project Number: 094991020
Scenario: Existing
Ldn/CNEL: CNEL

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

								Vehicle Mix		Distance from Centerline of Roadway			
				Median	ADT	Speed	Alpha	Medium	Heavy	CNEL at	Distance to Contour			
#	Roadway	Segment	Lanes	Width	Volume	(mph)	Factor	Trucks	Trucks	100 Feet	70 CNEL	65 CNEL	60 CNEL	55 CNEL
1	Goetz Road	Ethanac Road to McLaughlin Road	3	14	7,546	50	0	7.4%	2.5%	65.5	-	113	358	1,133
2	Ethnac Road	Goetz Road to Wheat Street	4	12	13,909	50	0	5.2%	3.2%	68.0	62	198	625	1,976
3	Ethnac Road	Wheat Street to Murrieta Road	4	12	14,059	50	0	7.1%	3.2%	68.5	70	222	704	2,225
4	Ethnac Road	Murrieta Road to Evans Road	4	12	16,595	50	0	9.1%	3.9%	69.8	96	305	964	3,047
5	Ethnac Road	Evans Road to Case Road	4	14	16,845	55	0	7.6%	3.7%	70.4	109	346	1,094	3,459
6	Ethnac Road	Case Road to I-215 SB Ramps	4	14	24,114	55	0	7.9%	4.6%	72.3	169	533	1,687	5,334
7	Ethnac Road	I-215 SB Ramps to I-215 NB Ramps	4	0	19,929	55	0	3.8%	2.1%	69.5	-	-	887	2,804
8	Wheat Street	Ethanac Road to McLaughlin Road	2	0	140	50	0	7.4%	2.5%	48.1	-	-	-	-

[1] Distance is from the centerline of the roadway segment to the receptor location.
"-" = contour is located within the roadway right-of-way.

FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels

Project Name: Menifee Compass Northern Gateway
Project Number: 094991020
Scenario: Opening Year
Ldn/CNEL: CNEL

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

								Vehicle Mix		Distance from Centerline of Roadway			
				Median	ADT	Speed	Alpha	Medium	Heavy	CNEL at	Distance to Contour			
#	Roadway	Segment	Lanes	Width	Volume	(mph)	Factor	Trucks	Trucks	100 Feet	70 CNEL	65 CNEL	60 CNEL	55 CNEL
1	Goetz Road	Ethanac Road to McLaughlin Road	3	14	9,038	50	0	7.5%	0.5%	65.5	-	113	359	1,134
2	Ethnac Road	Goetz Road to Wheat Street	4	12	25,459	50	0	5.3%	0.3%	69.2	84	266	841	2,659
3	Ethnac Road	Wheat Street to Murrieta Road	4	12	28,315	50	0	7.1%	0.5%	70.4	111	350	1,108	3,504
4	Ethnac Road	Murrieta Road to Evans Road	4	12	33,485	50	0	9.1%	0.7%	71.8	152	480	1,516	4,795
5	Ethnac Road	Evans Road to Case Road	4	14	36,277	55	0	7.7%	0.7%	72.8	189	597	1,888	5,972
6	Ethnac Road	Case Road to I-215 SB Ramps	4	14	43,837	55	0	8.0%	0.7%	73.7	233	736	2,326	7,356
7	Ethnac Road	I-215 SB Ramps to I-215 NB Ramps	4	0	34,464	55	0	3.9%	0.3%	71.0	127	402	1,272	4,023
8	Wheat Street	Ethanac Road to McLaughlin Road	2	0	2,846	50	0	7.2%	1.2%	60.6	-	37	117	369

[1] Distance is from the centerline of the roadway segment to the receptor location.
"-" = contour is located within the roadway right-of-way.

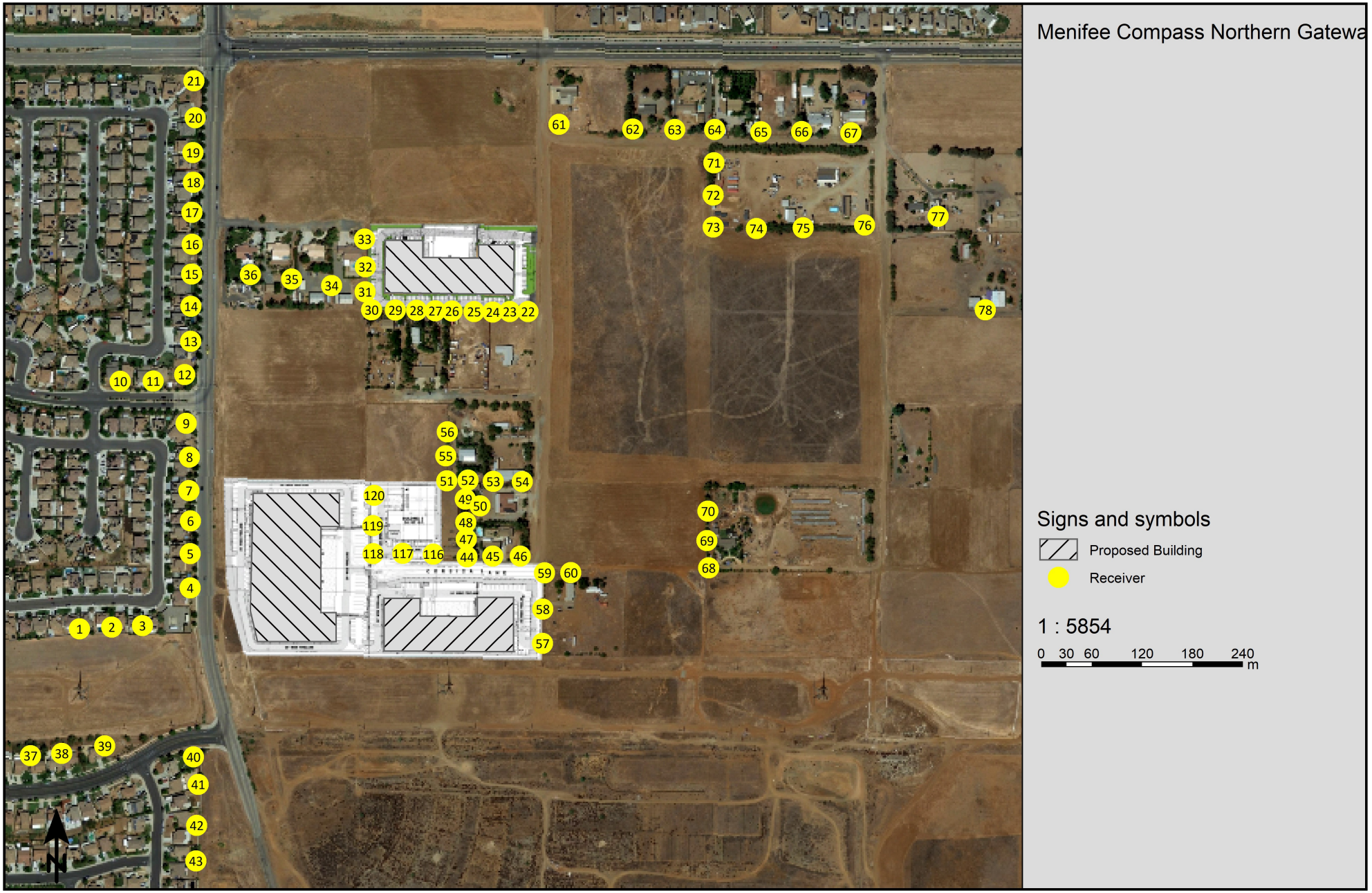
FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels

Project Name: Menifee Compass Northern Gateway
Project Number: 094991020
Scenario: Opening Year Plus Project
Ldn/CNEL: CNEL

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

								Vehicle Mix		Distance from Centerline of Roadway			
				Median	ADT	Speed	Alpha	Medium	Heavy	CNEL at	Distance to Contour			
#	Roadway	Segment	Lanes	Width	Volume	(mph)	Factor	Trucks	Trucks	100 Feet	70 CNEL	65 CNEL	60 CNEL	55 CNEL
1	Goetz Road	Ethanac Road to McLaughlin Road	3	14	9,243	50	0	7.5%	0.5%	65.6	-	116	367	1,160
2	Ethnac Road	Goetz Road to Wheat Street	4	12	25,648	50	0	5.3%	0.3%	69.3	85	268	847	2,679
3	Ethnac Road	Wheat Street to Murrieta Road	4	12	28,863	50	0	7.1%	0.5%	70.5	113	357	1,129	3,571
4	Ethnac Road	Murrieta Road to Evans Road	4	12	34,256	50	0	9.1%	0.7%	71.9	155	491	1,551	4,906
5	Ethnac Road	Evans Road to Case Road	4	14	37,276	55	0	7.7%	0.7%	72.9	194	614	1,940	6,136
6	Ethnac Road	Case Road to I-215 SB Ramps	4	14	44,836	55	0	8.0%	0.7%	73.8	238	752	2,379	7,524
7	Ethnac Road	I-215 SB Ramps to I-215 NB Ramps	4	0	34,993	55	0	3.9%	0.3%	71.1	129	408	1,292	4,085
8	Wheat Street	Ethanac Road to McLaughlin Road	2	0	3,221	50	0	7.2%	1.2%	61.2	-	42	132	417

[1] Distance is from the centerline of the roadway segment to the receptor location.
"-" = contour is located within the roadway right-of-way.


Menifee Compass Northern Gatewa
Signs and symbols
Proposed Building
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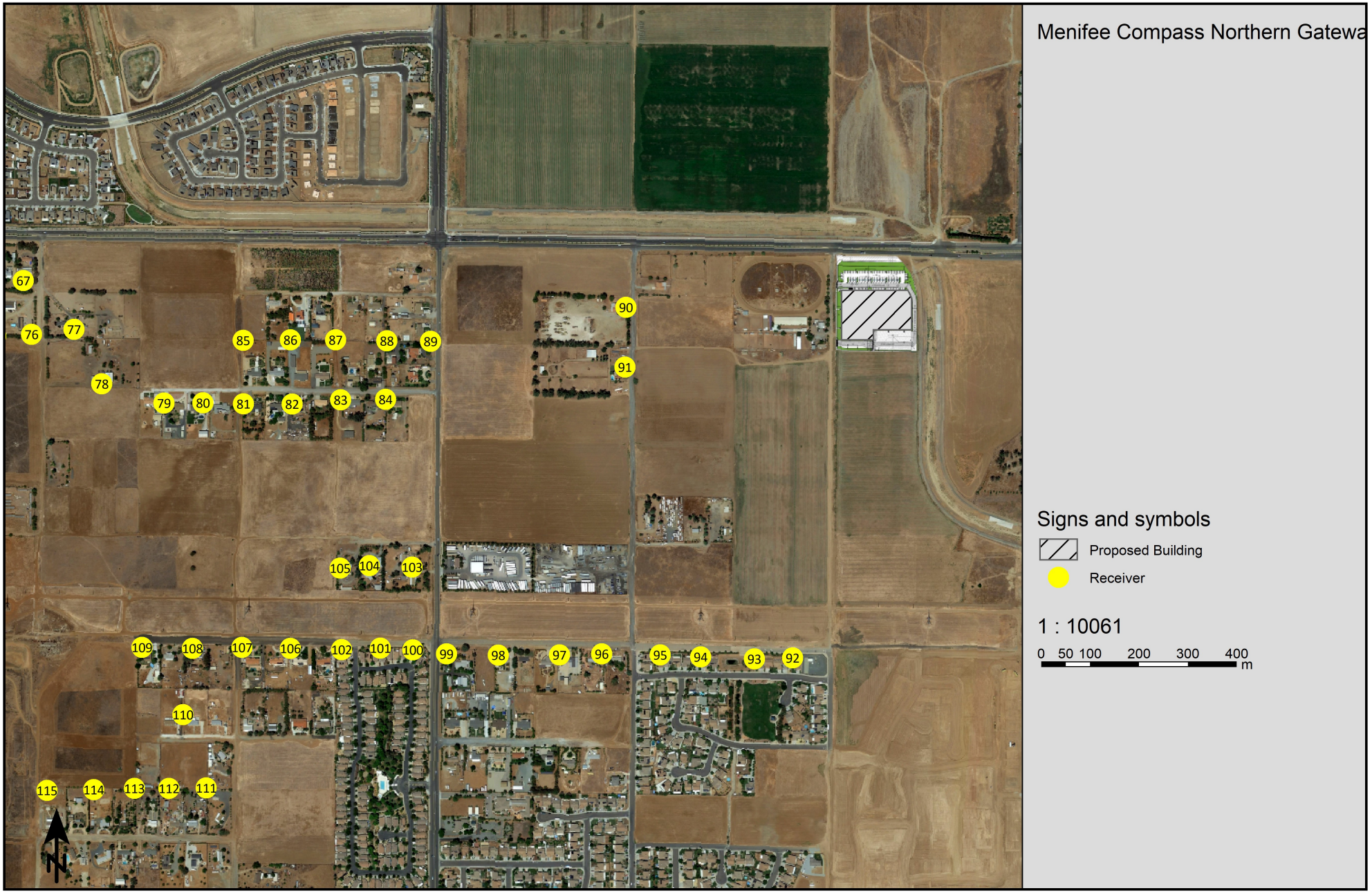
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Signs and symbols
Proposed Building
Receiver
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SoundPLAN Results - Construction										
UNMITIGATED							MITIGATED (8-foot-high wall)			
Receiver No.	Land Uuse	Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Receiver No.	Land Uuse	Paving	Reduction
		dBA	dBA	dBA	dBA	dBA				
1	Residential	59.3	60.6	62.1	61.6	48.6	1	Residential	61.6	0
2	Residential	60.5	61.8	63.3	62.8	49.8	2	Residential	62.8	0
3	Residential	61.8	63.2	64.6	64.1	51.2	3	Residential	64	0.1
4	Residential	65.5	67.1	68.1	67.8	54.7	4	Residential	67.7	0.1
5	Residential	65.8	67.3	68.2	68.4	54.7	5	Residential	68.4	0
6	Residential	65.6	67.1	67.8	68.4	54.4	6	Residential	68.4	0
7	Residential	64.9	66.3	67.0	67.6	53.5	7	Residential	67.6	0
8	Residential	63.8	65.1	66.0	66.5	52.4	8	Residential	66.4	0.1
9	Residential	62.6	63.7	65.0	65.2	51.2	9	Residential	65	0.2
10	Residential	59.9	60.8	62.4	62.3	48.4	10	Residential	62.2	0.1
11	Residential	60.8	61.7	63.3	63.2	49.3	11	Residential	63	0.2
12	Residential	61.6	62.5	64.0	64.0	50.0	12	Residential	63.8	0.2
13	Residential	61.4	62.1	63.8	63.6	49.5	13	Residential	63.4	0.2
14	Residential	61.1	61.6	63.4	63.2	49.0	14	Residential	62.9	0.3
15	Residential	60.8	61.2	63.1	62.9	48.5	15	Residential	62.6	0.3
16	Residential	60.3	60.7	62.1	62.6	47.6	16	Residential	62	0.6
17	Residential	60.1	60.4	62.2	62.2	47.5	17	Residential	61.9	0.3
18	Residential	59.9	60.1	62.0	61.9	47.2	18	Residential	61.6	0.3
19	Residential	59.5	59.7	61.5	61.5	46.7	19	Residential	61.2	0.3
20	Residential	59.0	59.2	61.1	61.0	46.2	20	Residential	60.8	0.2
21	Residential	58.3	58.5	60.4	60.3	45.6	21	Residential	60.2	0.1
22	Residential	77.6	77.3	73.7	79.4	58.0	22	Residential	74.4	5
23	Residential	78.4	78.1	75.9	80.6	60.4	23	Residential	75.2	5.4
24	Residential	78.2	77.9	76.9	80.5	61.5	24	Residential	75.3	5.2
25	Residential	78.5	78.2	77.5	80.9	62.1	25	Residential	75.6	5.3
26	Residential	78.7	78.4	77.8	81.2	62.4	26	Residential	75.8	5.4
27	Residential	78.7	78.4	77.8	81.4	62.4	27	Residential	75.9	5.5
28	Residential	78.8	78.5	77.9	81.7	62.5	28	Residential	76.1	5.6
29	Residential	78.7	78.4	76.9	81.9	61.7	29	Residential	76.2	5.7
30	Residential	76.4	76.1	74.1	79.3	58.8	30	Residential	74.7	4.6
31	Residential	78.1	77.8	75.7	81.3	60.4	31	Residential	75.3	6
32	Residential	78.4	78.1	77.4	81.3	61.9	32	Residential	75.5	5.8
33	Residential	77.8	77.5	75.8	80.4	60.1	33	Residential	75.2	5.2
34	Residential	68.8	68.7	70.6	70.6	55.3	34	Residential	69	1.6
35	Residential	65.1	65.1	67.3	66.7	52.3	35	Residential	65.9	0.8
36	Residential	62.9	63.1	65.2	64.7	50.4	36	Residential	64.2	0.5
37	Residential	56.4	57.7	59.2	58.8	45.7	37	Residential	58.8	0
38	Residential	57.1	58.4	60.0	59.5	46.5	38	Residential	59.5	0
39	Residential	58.2	59.6	61.1	60.6	47.7	39	Residential	60.6	0
40	Residential	60.1	61.6	63.1	62.5	49.7	40	Residential	62.5	0

UNMITIGATED							MITIGATED (8-foot-high wall)			
Receiver No.	Land Uuse	Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Receiver No.	Land Uuse	Paving	Reduction
		dBA	dBA	dBA	dBA	dBA				
41	Residential	59.4	60.8	62.3	61.7	49.0	41	Residential	61.7	0
42	Residential	58.1	59.5	61.1	60.6	47.8	42	Residential	60.5	0.1
43	Residential	57.2	58.6	60.1	59.7	46.8	43	Residential	59.6	0.1
44	Residential	69.3	70.9	69.5	77.3	57.7	44	Residential	77.3	0
45	Residential	69.6	71.3	69.8	77.2	58.4	45	Residential	77.2	0
46	Residential	68.1	69.7	67.9	75.9	56.0	46	Residential	75.9	0
47	Residential	67.1	68.6	68.4	72.2	56.2	47	Residential	72.1	0.1
48	Residential	65.9	67.3	67.7	70.1	55.2	48	Residential	69.7	0.4
49	Residential	65.0	66.2	67.1	68.6	54.1	49	Residential	68	0.6
50	Residential	64.7	65.9	66.7	68.3	53.7	50	Residential	67.9	0.4
51	Residential	65.2	66.3	67.2	68.5	53.9	51	Residential	67.9	0.6
52	Residential	64.1	65.3	66.2	67.5	53.1	52	Residential	66.9	0.6
53	Residential	64.1	65.0	66.2	67.1	52.7	53	Residential	66.6	0.5
54	Residential	63.2	64.0	65.2	65.9	51.3	54	Residential	65.3	0.6
55	Residential	65.0	65.9	67.1	68.0	53.4	55	Residential	67.4	0.6
56	Residential	65.2	65.8	67.3	67.7	53.2	56	Residential	67.1	0.6
57	Residential	72.7	74.4	69.6	74.0	57.7	57	Residential	74	0
58	Residential	72.3	74.0	69.7	74.9	57.8	58	Residential	74.9	0
59	Residential	69.6	71.3	67.6	74.5	55.7	59	Residential	74.5	0
60	Residential	64.8	66.2	65.9	68.3	53.7	60	Residential	68.2	0.1
61	Residential	63.5	63.4	64.9	65.6	49.6	61	Residential	65.6	0
62	Residential	61.4	61.3	62.9	63.4	47.7	62	Residential	63.4	0
63	Residential	60.1	60.1	61.8	62.1	46.7	63	Residential	62.1	0
64	Residential	59.0	59.1	60.7	61.0	45.7	64	Residential	61	0
65	Residential	57.9	58.0	59.6	59.9	44.8	65	Residential	59.8	0.1
66	Residential	57.0	57.1	58.8	58.9	44.0	66	Residential	58.9	0
67	Residential	55.9	56.1	57.8	57.9	43.1	67	Residential	57.9	0
68	Residential	58.9	59.8	61.0	61.4	47.8	68	Residential	61.2	0.2
69	Residential	59.1	59.9	61.2	61.5	47.8	69	Residential	61.4	0.1
70	Residential	59.2	59.9	61.2	61.6	47.7	70	Residential	61.4	0.2
71	Residential	59.6	59.6	61.2	61.5	46.2	71	Residential	61.5	0
72	Residential	60.0	60.0	61.6	62.0	46.6	72	Residential	61.9	0.1
73	Residential	60.3	60.3	61.9	62.3	47.0	73	Residential	62.2	0.1
74	Residential	58.9	59.0	60.7	60.9	45.8	74	Residential	60.9	0
75	Residential	57.7	57.8	59.5	59.7	44.8	75	Residential	59.6	0.1
76	Residential	56.3	56.5	58.1	58.3	43.5	76	Residential	58.2	0.1
77	Residential	54.8	55.1	56.8	56.8	42.3	77	Residential	56.8	0
78	Residential	54.2	54.6	56.2	56.3	41.9	78	Residential	56.2	0.1
79	Residential	52.8	53.2	54.8	54.7	40.5	79	Residential	54.7	0
80	Residential	52.0	52.4	54.1	53.8	39.8	80	Residential	53.8	0

UNMITIGATED							MITIGATED (8-foot-high wall)			
Receiver No.	Land Uuse	Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Receiver No.	Land Uuse	Paving	Reduction
		dBA	dBA	dBA	dBA	dBA				
81	Residential	51.4	51.7	53.4	53.1	39.1	81	Residential	53	0.1
82	Residential	50.8	51.1	52.9	52.3	38.4	82	Residential	52.3	0
83	Residential	50.5	50.7	52.5	51.7	37.9	83	Residential	51.7	0
84	Residential	50.5	50.6	52.5	51.3	37.7	84	Residential	51.3	0
85	Residential	51.3	51.6	53.3	52.9	38.9	85	Residential	52.9	0
86	Residential	50.8	51.1	52.8	52.2	38.3	86	Residential	52.2	0
87	Residential	50.5	50.7	52.5	51.7	37.9	87	Residential	51.7	0
88	Residential	50.5	50.6	52.5	51.3	37.7	88	Residential	51.3	0
89	Residential	50.7	50.8	52.7	51.2	37.7	89	Residential	51.2	0
90	Residential	54.8	54.6	56.7	53.9	41.2	90	Residential	53.9	0
91	Residential	54.5	54.3	56.5	53.6	41.0	91	Residential	53.6	0
92	Residential	51.2	51.0	53.2	50.6	37.8	92	Residential	50.6	0
93	Residential	51.0	50.8	53.0	50.5	37.6	93	Residential	50.5	0
94	Residential	50.6	50.5	52.6	50.2	37.3	94	Residential	50.2	0
95	Residential	50.3	50.2	52.3	50.0	37.1	95	Residential	50	0
96	Residential	49.8	49.8	51.9	49.8	36.7	96	Residential	49.8	0
97	Residential	49.5	49.5	51.5	49.7	36.5	97	Residential	49.7	0
98	Residential	49.2	49.3	51.2	49.7	36.4	98	Residential	49.7	0
99	Residential	49.1	49.3	51.2	49.9	36.5	99	Residential	49.9	0
100	Residential	49.1	49.4	51.2	50.2	36.7	100	Residential	50.1	0.1
101	Residential	49.2	49.5	51.3	50.4	36.9	101	Residential	50.4	0
102	Residential	49.4	49.8	51.5	50.8	37.3	102	Residential	50.8	0
103	Residential	49.7	50.0	51.8	50.7	37.2	103	Residential	50.6	0.1
104	Residential	49.8	50.1	51.9	51.0	37.4	104	Residential	51	0
105	Residential	49.9	50.3	52.0	51.3	37.7	105	Residential	51.3	0
106	Residential	49.8	50.3	52.0	51.5	37.9	106	Residential	51.4	0.1
107	Residential	50.3	50.9	52.5	52.2	38.6	107	Residential	52.1	0.1
108	Residential	51.0	51.7	53.2	53.0	39.4	108	Residential	53	0
109	Residential	51.9	52.6	54.1	54.0	40.4	109	Residential	53.9	0.1
110	Residential	50.5	51.2	52.8	52.5	39.1	110	Residential	52.5	0
111	Residential	49.4	50.1	51.7	51.4	37.9	111	Residential	51.3	0.1
112	Residential	49.9	50.6	52.2	51.9	38.5	112	Residential	51.9	0
113	Residential	50.3	51.1	52.6	52.4	39.0	113	Residential	52.4	0
114	Residential	50.8	51.7	53.2	53.0	39.7	114	Residential	53	0
115	Residential	51.5	52.4	53.9	53.8	40.5	115	Residential	53.7	0.1
116	Residential	69.3	70.8	69.8	76.7	57.8	116	Residential	76.5	0.2
117	Residential	69.6	71.2	70.5	77.5	58.1	117	Residential	73.8	3.7
118	Residential	73.5	74.6	71.5	80.6	58.4	118	Residential	76.4	4.2
119	Residential	73.2	74.6	70.9	78.9	57.5	119	Residential	74.3	4.6
120	Residential	72.6	74.8	70.0	78.3	56.7	120	Residential	73.3	5

Source: SoundPLAN Essential 5.1

SoundPLAN Results - Operations									
UNMITIGATED						Mitigated (12-foot high abosprtive soundwall)			
Receiver No.	Land use	Day dB(A)	Exceeds 65 dBA Standard?	Night dB(A)	Exceeds 45 dBA Standard?	Day dB(A)	Exceeds 65 dBA Standard?	Night dB(A)	Exceeds 45 dBA Standard?
1	Residential	37.8	No	37.8	No	37.8	No	37.8	No
2	Residential	38.4	No	38.4	No	38.4	No	38.4	No
3	Residential	38.9	No	38.8	No	38.9	No	38.8	No
4	Residential	40.0	No	39.9	No	40.0	No	39.9	No
5	Residential	40.3	No	40.3	No	40.3	No	40.3	No
6	Residential	40.3	No	40.3	No	40.3	No	40.3	No
7	Residential	40.0	No	40.0	No	40.0	No	40.0	No
8	Residential	39.8	No	39.7	No	39.8	No	39.7	No
9	Residential	39.7	No	39.7	No	39.7	No	39.6	No
10	Residential	37.9	No	37.9	No	37.9	No	37.9	No
11	Residential	38.6	No	38.6	No	38.6	No	38.6	No
12	Residential	39.2	No	39.1	No	39.1	No	39.1	No
13	Residential	39.1	No	39.0	No	39.0	No	39.0	No
14	Residential	38.7	No	38.6	No	38.6	No	38.6	No
15	Residential	38.3	No	38.3	No	38.3	No	38.3	No
16	Residential	38.1	No	38.0	No	38.0	No	38.0	No
17	Residential	37.6	No	37.5	No	37.6	No	37.5	No
18	Residential	37.2	No	37.1	No	37.1	No	37.1	No
19	Residential	36.7	No	36.7	No	36.7	No	36.7	No
20	Residential	36.4	No	36.3	No	36.3	No	36.3	No
21	Residential	35.8	No	35.7	No	35.7	No	35.7	No
22	Residential	42.4	No	41.3	No	42.3	No	41.3	No
23	Residential	43.2	No	42.2	No	43.0	No	42.1	No
24	Residential	43.6	No	42.7	No	43.3	No	42.6	No
25	Residential	43.7	No	43.0	No	43.5	No	42.9	No
26	Residential	43.9	No	43.1	No	43.6	No	43.0	No
27	Residential	43.6	No	42.8	No	43.4	No	42.8	No
28	Residential	43.5	No	42.7	No	43.4	No	42.6	No
29	Residential	43.7	No	42.7	No	43.4	No	42.6	No
30	Residential	42.7	No	42.0	No	42.4	No	41.9	No
31	Residential	42.3	No	41.5	No	42.1	No	41.4	No
32	Residential	42.7	No	42.0	No	42.5	No	41.9	No
33	Residential	42.7	No	40.9	No	42.6	No	40.8	No
34	Residential	41.2	No	40.8	No	40.8	No	40.6	No
35	Residential	40.5	No	40.1	No	40.1	No	40.0	No
36	Residential	39.9	No	39.5	No	39.4	No	39.3	No
37	Residential	35.9	No	35.8	No	35.8	No	35.8	No
38	Residential	36.5	No	36.5	No	36.5	No	36.5	No
39	Residential	37.4	No	37.4	No	37.4	No	37.4	No
40	Residential	38.9	No	38.8	No	38.9	No	38.8	No

SoundPLAN Results - Operations									
UNMITIGATED						Mitigated (12-foot high abosprtive soundwall)			
Receiver No.	Land use	Day dB(A)	Exceeds 65 dBA Standard?	Night dB(A)	Exceeds 45 dBA Standard?	Day dB(A)	Exceeds 65 dBA Standard?	Night dB(A)	Exceeds 45 dBA Standard?
41	Residential	38.5	No	38.4	No	38.4	No	38.4	No
42	Residential	37.6	No	37.6	No	37.6	No	37.6	No
43	Residential	36.9	No	36.9	No	36.9	No	36.8	No
44	Residential	56.7	No	52.0	Yes	44.5	No	43.9	No
45	Residential	56.6	No	51.9	Yes	44.4	No	43.9	No
46	Residential	55.1	No	50.4	Yes	42.5	No	42.1	No
47	Residential	51.8	No	47.9	Yes	44.4	No	43.7	No
48	Residential	49.4	No	46.1	Yes	43.9	No	43.3	No
49	Residential	47.2	No	44.5	No	43.2	No	42.8	No
50	Residential	47.0	No	44.4	No	43.2	No	42.7	No
51	Residential	46.4	No	44.1	No	43.2	No	42.7	No
52	Residential	46.2	No	43.6	No	42.4	No	41.9	No
53	Residential	45.1	No	43.0	No	42.3	No	41.9	No
54	Residential	42.1	No	41.0	No	40.6	No	40.4	No
55	Residential	45.3	No	43.4	No	42.7	No	42.4	No
56	Residential	44.5	No	43.0	No	42.6	No	42.3	No
57	Residential	42.6	No	40.6	No	39.6	No	39.4	No
58	Residential	46.8	No	43.2	No	40.3	No	39.7	No
59	Residential	52.4	No	48.0	Yes	41.9	No	41.2	No
60	Residential	46.9	No	43.6	No	41.5	No	40.8	No
61	Residential	39.1	No	38.2	No	39.1	No	38.2	No
62	Residential	37.8	No	37.2	No	37.7	No	37.2	No
63	Residential	37.3	No	36.6	No	37.2	No	36.6	No
64	Residential	36.5	No	36.0	No	36.4	No	35.9	No
65	Residential	35.5	No	35.1	No	35.4	No	35.1	No
66	Residential	34.6	No	34.4	No	34.5	No	34.3	No
67	Residential	33.5	No	33.3	No	33.5	No	33.3	No
68	Residential	39.0	No	38.0	No	37.7	No	37.5	No
69	Residential	39.4	No	38.2	No	37.8	No	37.6	No
70	Residential	38.6	No	37.9	No	37.7	No	37.6	No
71	Residential	36.9	No	36.4	No	36.7	No	36.3	No
72	Residential	37.1	No	36.7	No	36.9	No	36.6	No
73	Residential	37.4	No	37.0	No	37.2	No	36.9	No
74	Residential	36.4	No	36.1	No	36.2	No	36.0	No
75	Residential	35.4	No	35.1	No	35.2	No	35.1	No
76	Residential	34.2	No	34.0	No	34.1	No	34.0	No
77	Residential	33.0	No	32.8	No	32.9	No	32.8	No
78	Residential	32.7	No	32.5	No	32.5	No	32.4	No
79	Residential	31.3	No	31.1	No	31.1	No	31.1	No
80	Residential	30.5	No	30.4	No	30.4	No	30.3	No

SoundPLAN Results - Operations									
UNMITIGATED						Mitigated (12-foot high abosprtive soundwall)			
Receiver No.	Land use	Day dB(A)	Exceeds 65 dBA Standard?	Night dB(A)	Exceeds 45 dBA Standard?	Day dB(A)	Exceeds 65 dBA Standard?	Night dB(A)	Exceeds 45 dBA Standard?
81	Residential	29.8	No	29.7	No	29.7	No	29.6	No
82	Residential	29.1	No	29.0	No	29.0	No	28.9	No
83	Residential	28.6	No	28.5	No	28.5	No	28.4	No
84	Residential	28.4	No	28.2	No	28.3	No	28.2	No
85	Residential	29.6	No	29.5	No	29.5	No	29.4	No
86	Residential	29.0	No	28.8	No	28.9	No	28.8	No
87	Residential	28.6	No	28.4	No	28.5	No	28.4	No
88	Residential	28.3	No	28.1	No	28.2	No	28.1	No
89	Residential	28.3	No	28.1	No	28.2	No	28.1	No
90	Residential	31.2	No	31.0	No	31.2	No	31.0	No
91	Residential	31.2	No	30.9	No	31.1	No	30.9	No
92	Residential	28.2	No	27.9	No	28.2	No	27.9	No
93	Residential	28.0	No	27.7	No	28.0	No	27.7	No
94	Residential	27.7	No	27.5	No	27.7	No	27.5	No
95	Residential	27.5	No	27.3	No	27.5	No	27.3	No
96	Residential	27.2	No	27.0	No	27.2	No	27.0	No
97	Residential	27.1	No	26.9	No	27.0	No	26.9	No
98	Residential	27.0	No	26.9	No	27.0	No	26.8	No
99	Residential	27.1	No	27.0	No	27.1	No	27.0	No
100	Residential	27.3	No	27.2	No	27.3	No	27.2	No
101	Residential	27.6	No	27.5	No	27.5	No	27.4	No
102	Residential	27.9	No	27.8	No	27.9	No	27.8	No
103	Residential	27.9	No	27.7	No	27.7	No	27.7	No
104	Residential	28.2	No	28.0	No	28.0	No	27.9	No
105	Residential	28.4	No	28.2	No	28.3	No	28.2	No
106	Residential	28.5	No	28.4	No	28.5	No	28.4	No
107	Residential	29.2	No	29.1	No	29.1	No	29.1	No
108	Residential	30.0	No	30.0	No	30.0	No	29.9	No
109	Residential	31.0	No	30.9	No	30.9	No	30.9	No
110	Residential	29.7	No	29.6	No	29.6	No	29.6	No
111	Residential	28.6	No	28.5	No	28.5	No	28.5	No
112	Residential	29.2	No	29.1	No	29.1	No	29.1	No
113	Residential	29.7	No	29.6	No	29.6	No	29.6	No
114	Residential	30.4	No	30.3	No	30.3	No	30.3	No
115	Residential	31.2	No	31.1	No	31.1	No	31.1	No
116	Residential	55.6	No	51.1	Yes	45.4	No	44.4	No
117	Residential	55.2	No	50.7	Yes	46.5	No	44.9	No
118	Residential	54.9	No	50.6	Yes	47.8	No	44.9	No
119	Residential	50.1	No	46.6	Yes	43.7	No	42.5	No
120	Residential	47.6	No	45.0	No	42.5	No	41.9	No

Source: SoundPLAN Essential 5.1